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**5TH International Congress on
ACTION RESEARCH, ACTION LEARNING
(ARAL 2021)**

May 20-22, 2021

Fully VIRTUAL mode

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“Action Research in Time of Uncertainty”

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In collaboration with:

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De La Salle University, Manila (Philippines)

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Distance Learning in Basic Education in the Philippines: Challenges and Opportunities

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Abstract

The COVID-19 pandemic has forced basic as well as higher education institutions in the Philippines (and in most other countries) to shift to distance education. Though distance education has been shown to be at least as good as classroom instruction in terms of student achievement, realizing the benefits of distance education will not be easy in a country where there is a stark digital divide and where teachers and students lack preparation for this mode of delivery. Nevertheless, there are golden opportunities to be seized. Learning new competencies that support distance education, such as self-regulated learning and educational action research, will bring many rewards now and in the future.

Distance Education

Distance education (DE) is “teaching and planned learning in which the teaching normally occurs in a different place from learning” (Moore and Diehl, 2018, p. xii). This enables students with geographic, health, financial, or familial constraints to pursue education, which is a fundamental human right. To bridge the distance between the teacher and the learner, distance education uses a *delivery system*. In the so-called *industrial era* of distance education (see Garrison, 2020), which began in the 1800s with correspondence courses (Kentnor, 2015), the postal service was the delivery system through which learning materials were sent back and forth between teachers and learners. In the 1900s, radio and television were added as DE delivery technologies. Today, though paper-based DE still exists, more and more DE courses are being delivered via the Internet.

The use of the Internet for learning is called *online learning* (OL). Online learning activities can be performed *synchronously*, i.e., teacher-learner interaction happens in real time, or *asynchronously*. Online learning has been equated with *post-industrial* DE by some (e.g., Swan, 2020); however, distance education and online learning are not the same. The goal of the former is access whereas the goal of the latter is the enhancement of teaching and learning (Cleveland-Innes & Garrison, 2020). Therefore, online learning is useful not only for distance education but also for *campus-based* education. Moreover, campus-based education can be *blended* such that some of the learning happens online, while some of it happens face-to-face in classrooms. Similarly, distance education

can be blended, too, such as when some of the learning happens online while some of it happens via other delivery systems, including physical establishments that serve as *learning centers*.

Is distance education better or worse than face-to-face or classroom instruction (CI)? The majority of the studies in Thomas Russell's 1999 book titled "The No Significant Difference Phenomenon" and in its companion website nosignificantdifference.org suggest that distance education is as good as classroom instruction. A 2004 meta-analysis of 510 findings from 157 studies (Bernard et al., 2004) showed a very small but significantly positive mean effect size for interactive DE over traditional CI on student achievement. A more recent meta-analysis of 50 effect sizes in 45 studies (Means et al., 2013) showed that, on average, students in online learning conditions performed modestly better than those receiving face-to-face instruction, with better results for blended approaches.

Distance education might be viewed as more appropriate for adult learners. After all, "the sine qua non of distance education has been independent study through prepared course materials that would guide the self-directed individual learner" (Cleveland-Innes & Garrison, 2020). However, a 2004 meta-analysis of 116 effect sizes from 14 web-delivered K-12 DE programs (Cavanaugh, 2004) showed that distance education can have the same effect on measures of student academic achievement when compared to traditional instruction. All the above meta-analyses indicate that students who enroll in DE courses or programs can get the same quality of instruction as those who go to brick-and-mortar schools, whether in higher education or in basic education.

Pandemic-driven Distance Basic Education in the Philippines

The COVID-19 pandemic has forced higher as well as basic educational institutions in the Philippines (and in most other countries) to shift to distance education. Some authors (e.g., Hodges et al., 2020) have proposed to call this *emergency remote teaching/learning* rather than distance education, because of the relatively haphazard and short-term nature of the use of DE delivery systems.

The Department of Education (DepEd) has implemented three modalities of remote learning, which it has called: 1) *modular distance learning*, in which learners are given self-learning modules (SLMs), usually in printed form; 2) *online distance learning*; and 3) *TV/radio-based instruction*, in which the SLMs are converted to video lessons or radio scripts (DepEd, 2020). Because only 18% of households in the country have Internet access (DICT, 2019), most students in DepEd schools had to content themselves with the first modality, i.e., paper-based remote learning, in which parents would pick up printed SLMs at school and then return the activity sheets, presumably filled out by their children, to the school after a while.

Many, including the DepEd Secretary herself (Inso, 2021), view paper-based remote learning as unsustainable financially and environmentally. A report estimated the

cost of printing two quarters worth of SLMs (around 93.6 billion pages) at 35 billion pesos (Magsambol, 2020b). It is also expensive to correct errors found in the printed modules. There are also fears of virus transmission when the paper modules are exchanged (Magsambol, 2020a). These problems are further exacerbated by so-called *distance cheating* (Adonis, 2020).

Four different nationwide surveys (SWS, SeQuRe, Pulse Asia, ACT) were conducted from November 2020 to April 2021 that looked at different aspects of distance learning in basic education in the country. 80% of the respondents of the first survey (SWS) said that their children were enrolled in exclusively modular distance learning, whereas only 14% were enrolled in exclusively online learning, and only 4%, in blended learning (Lalu, 2021). 42% of the said survey respondents also said that their children did not use any device. In the second survey (SeQuRe), 71% of the teacher respondents did not think or were not confident that their students were acquiring the learning competencies (Bernardo, 2021). Only 4% of the SeQuRe respondents said that all of their students could keep up with the lessons. In the third survey (Pulse Asia), 55% of the respondents who had children in basic education believed that their children were not learning or were unsure if their children were learning at all (Terrazola, 2021). Difficulty answering the SLMs was the most common educational problem encountered (53%), especially among respondents in Mindanao (74%) and among respondents in the lowest socioeconomic class (71%). In the fourth survey (ACT), 4-6% of the 6,731 DepEd teacher-respondents still had no laptops and only 4-6% had laptops provided by DepEd (Malipot, 2021).

Challenges

The meta-analyses above indicate that distance education is as good as, and might even be better, than classroom instruction, not only in higher education but even in basic education. However, the studies covered by these meta-analyses involved DE of the online learning type. Unfortunately, only 18% of households in the country have Internet access (DICT, 2019). Therefore, a major challenge that needs to be addressed is the country's digital divide as well as its being on the "wrong side" (World Bank, 2020) of the region's digital divide. Among ASEAN countries with similar GDP per capita, the Philippines has the lowest number of cell towers—only 20,000 as compared to, Vietnam's 70,000, for example (World Bank, 2020, p. 3). Vietnam also has 170% more fiber connections than PLDT and Globe have of all types of fixed broadband subscribers combined (p. 34). These and the fact that fixed and mobile broadband fees in the country are higher than the ASEAN average have led to fixed and broadband Internet penetration rates that are the lowest among ASEAN countries of comparable GDP per capita. Digital divide is not a technological issue, but an economic and political one.

Ameliorating the digital divide in the country would need major policy changes and more effective policy implementation.¹

A second major challenge that needs to be addressed has to do with the lack of teacher training for effective distance education, whether of the paper-based or online type. In May 2020, only 15% of DepEd teachers were reported to have been trained in DE delivery systems (Bernardo & Domingo, 2020). Effective pedagogies for paper-based distance learning, for online distance learning, for blended learning, and for classroom instruction are not the same.

A third major challenge is that the students are unprepared for distance education, particularly of the paper-based kind, in at least two ways. First, they are unprepared to manage or regulate their own learning. Because there is significantly less teacher-student interaction in paper-based DE than in classroom instruction, paper-based DE requires a certain degree of self-regulated learning (SRL). Unfortunately for young learners, SRL seems to relate to learners' age, among others, so that younger learners tend to have poorer SRL skills than older learners (see, e.g., Zimmerman and Martinez-Pons (1990) and Artino and Stephens (2009)). Fortunately, SRL skills can be taught.

There is another sense in which our young students are unprepared for a learning mode that has significantly less teacher-student interaction compared to classroom instruction: a great number of Filipino students might not have the fundamental subject competencies expected of their grade. One indicator of this would be the alarming decline in the mean percentage scores (MPS) of Grade 6 students in the National Achievement Test (NAT)—from 69.55 in SY 2012-2013 to 39.41 in SY 2016-2017—as shown in Figure 1. This decline seems consistent with (and might even partially explain) the “dismal” (Punongbayan, 2019) performance of the Philippines in all three international assessments that it recently took part in (PISA in 2018; TIMSS and SEA-PLM in 2019).

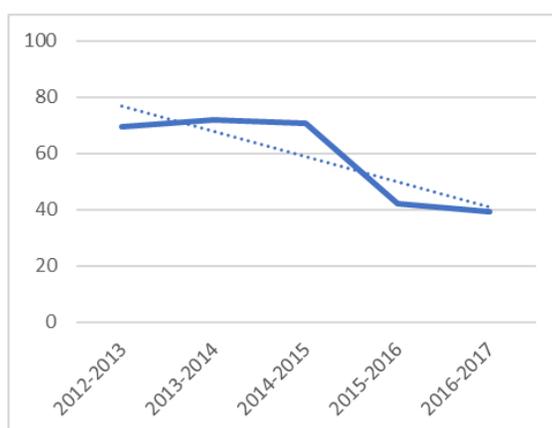


Figure 1. NAT Results, grade 6 (Average MPS of Regions)²

¹ The report *A Better Normal Under Covid-19: Digitalizing the Philippine Economy Now* (World Bank, 2020) provides several, carefully thought-out policy recommendations.

DepEd initiated a program called Sulong Edukalidad in response to “declining test scores among students” (Alcober, 2019). The program has four pillars of reform: 1) K to 12 curriculum review and update; 2) Improving the learning environment; 3) Teachers’ upskilling and reskilling; and 4) Engagement of stakeholders for support and collaboration. All four pillars should be able to address the second and third challenges above. To address the first challenge, Congress, the Department of Information and Communications Technology (DICT), and the Department of Public Works and Highways (DPWH) will need to work hand in hand.

Opportunities

Despite the many challenges that teachers and students are facing during the pandemic, certain situations have arisen that could be viewed as golden opportunities for us to seize. First, because basic education in the Philippines is now happening in distance mode, now would be a good time for everyone involved in education to invest in devices that support distance education. The key word here is “invest,” which is “to put money, effort, time, etc. into something to make profit or get an advantage” (Cambridge Dictionary, n.d.). The future of learning is blended, so purchasing these devices now will not only benefit a teacher or learner during this pandemic, but the blended teaching or learning skills that a teacher or learner could develop with the help of these devices will benefit him or her throughout his or her lifetime.

Second, teachers could take charge of their professional development. A recent survey (TNTP, 2015) of more than 10,000 teachers and 500 school leaders in the U.S. found that despite massive investments in teacher professional development (TPD), most teachers do not appear to improve substantially from year to year. This confirms the findings of an earlier national (U.S.) study, which reported that though more than 9 out of 10 U.S. teachers have participated in TPD programs, which consisted primarily of short-term conferences or workshops, these same teachers find much of the TPD available to them as not useful (Darling-Hammond et al., 2009). Though these national studies are of the TPD situation in the U.S, the TPD situation in the Philippines would probably be the same if not worse, given the more limited resources of the country.

One promising approach to TPD is action research (AR), which can be defined as a “reflective inquiry undertaken by educators in order to better understand the education environment and to improve practice” (Grady, 1998, as cited in Dosemagen & Schwalbach, 2019, p. 161). AR involves a “self-reflective spiral” (Kemmis, McTaggart & Nixon, 2014, p. 18) of planning a change, acting (i.e., doing) and observing the process

¹ The data plotted in this chart are from the National Achievement Test Results (SY 2012-2013 to SY 2016-2017), Bureau of Education Assessment, Department of Education. The dotted line represents the trend line.

and consequences of the change, and reflecting on those processes and consequences. The advantage of AR over traditional TPD is that “you do not have to rely on experts to tell you what does and does not work... action research enables you to become your own expert” (Johnson, 2019).

There are myriad possible AR problems for teachers to work on during the pandemic. For example, given that difficulty answering SLMs was the most common educational problem encountered by respondents of a recent Pulse Asia survey (Terrazola, 2021), a teacher could use AR to determine if this is also a concern of her students and, if so, do something about it. As another example, given that only 4% of students seem to be able to keep up with lessons according to a SeQuRe survey (Bernardo, 2021), how might a teacher use AR to increase this number in one's class? In light of the PISA, TIMSS, and SEA-PLM results, teachers could also use AR to look for or develop simple yet potentially effective strategies to improve their students' learning. One such strategy would be encouraging a growth mindset, which is based on the belief that one's basic qualities are things that can be cultivated through effort (Dweck, 2007), and which has been found to correlate with PISA scores (OECD, 2021). Another strategy would be encouraging their students' parents to provide greater emotional support for their students' education, which appears to be positively correlated with the PISA test scores of the Filipino students who took the said test (Orbeta, et al., 2020)).

Third, students could be taught to manage or regulate their own learning. Zimmermann (2000) identified three phases of self-regulated learning (SRL): forethought (task analysis and goal setting; self-motivation and self-efficacy), performance (self-control; self-observation) and self-reflection (self-judgment, self-reaction), all of which can be developed as skills. Related to these is the finding from PISA data that when students had higher motivation and self-efficacy, set more ambitious learning goals, and valued school more, they scored higher in reading, mathematics, and science (OECD, 2021). Several meta-analyses of SRL interventions in basic education (Dignath & Buettner, 2008; Li et al., 2018) as well as in higher education (Jansen, 2019; Theobald, 2018) have shown that SRL leads to improvements in students' academic performance as well as in their strategic behavior and motivation. In fact, one can view (self-)regulation as the fourth “R” in basic education, after reading, writing, and rithmetic.

In a DOST-PCIEERD-funded project (Sison, 2021), we are developing lessons and learning materials for Grade-6 mathematics, science, and English. The lessons and learning materials will be delivered via datacasting technology. Datacasting uses television signals rather than the Internet for content delivery, so it can be used to send learning materials to students in the 83% of households in the country with television sets. (In contrast, recall that only 18% of households in the country have Internet access.) However, because this technology is only capable of one-way transmission by default, we are incorporating SRL activities in our lessons. SRL is particularly important when there

is minimal teacher-student interaction in a DE setup, because the students will be learning on their own most of the time. We will be using participatory action research to adjust our lessons and learning materials from quarter to quarter.

Summary

The pandemic has forced our teachers and students to shift from traditional classroom instruction to distance education. Though distance education has been shown to be at least as good as, if not slightly better than, classroom instruction in terms of student achievement, realizing the benefits of distance education will not be easy in our country, where there is a stark digital divide, and where both teachers and students are unprepared for it. Nevertheless, there are golden opportunities to be seized. Investing in devices and learning new competencies that support distance education, such as self-regulated learning, will bring many rewards now and in the future, because the future of learning is blended. Now would also be a good time to engage in educational action research, which not only offers to be a promising alternative to traditional teacher professional development, but also provides a systematic and reflective way of thinking inside as well as outside the box of ways to support our learners in these trying times.

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Mother Tongue Based Multilingual Education: The Meranao Pre-service Teachers' Attitudes

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Abstract. Although researchers had been done scrutinizing and presenting the attitudes of the teachers, students, and parents toward the implementation of the Mother tongue-based multilingual education (MTBMLE) policy in the educational landscape around the world, no research study, prior to this study, had focused on the attitudes of the Meranao pre-service teachers toward the implementation of such policy. This study illustrates the attitudes of the Meranao pre-service teachers that are taking Bachelor of Elementary Education - Major in General Education within Marawi City toward the MTBMLE policy as well as factors that influence their attitudes. Survey questionnaire and an interview were used to gather the data from the 50 research participants of four (4) Institutions in Marawi City, specifically MSU-Main Campus, AKIC, PMTC and MSU- LNCAT. The results indicate that the Meranao pre-service teachers have positive attitude toward the implementation of the MTBMLE policy and such attitudes were influence by their personal beliefs. The research participants also suggested for proper training to the pre-service teachers and additional fund for Meranao learning resources to attain the success of the policy.

Keywords: MTBMLE, Meranao Pre-service Teachers, attitudes, factors, suggestions

1 Introduction

The effectiveness of the implementation of Mother Tongue-Based Multilingual Education (MTBMLE) policy effectuated a great change in most of the countries' education realm around the world. Specifically, MTBMLE policy refers to "first-language-first" education that is, schooling which begins in the mother tongue and transitions to additional languages particularly the Filipino and English (Lartec et al., 2014). It offers plausible framework for the preparation of the coming generations to become better adaptive and even rich contributor in the globalized and intercultural world. According to the ACDP Indonesia (2014), a large body of evidence from different countries as well as advances in the field of cognitive neuroscience show that children who have access to

mother tongue based multilingual education (MTB MLE) develop better language skills in their mother tongues as well as national languages.

On the other hand, despite the effectiveness of the policy in the learner's cognitive development and academic competencies, the success of the policy still relies on the hands of the teachers for they are the front lines of the policy. The attitudes of the teachers about the policy shall be centered and be recognized to ensure the efficacy of the program (Noam & Sarah, 2014). Paulson Stone (2012) asserted that the teachers play an essential role in the education system, including the implemented policy, if it will run or not. But even the positive promises of the implementation of MTBMLE policy, Noam and Sarah (2014) claimed that myriad challenges were still faced especially in the teachers' preparation, which scope the teacher education program preparation. In that case, it is quite clear that the attitudes of the pre-service teachers shall also be considered for the success of any education policy for the particular reason that they are the next teachers that will administer the policy. As articulated by Berowa, Devanadera, and Dvid (2018), "attitudes is a disposition to respond favorably or unfavorably to the object, person, institution, or event" (p.8). Since the pre-service teachers also play an essential role, their attitudes toward MTBMLE policy shall be investigated to ensure the effectiveness of such policy.

Therefore, this study served as an extension of the previous study of Berowa and Agbayani (2019) except the fact that it rather scrutinized the attitudes of the Pre-Service teachers toward the MTBMLE policy and sought to find out the possible factors influencing their attitudes. This study concentrated on the pre-service teachers who are currently taking Bachelor of Elementary Education Major in General Education for they are the future teachers in the primary level of education. They also have more understanding about the MTBMLE policy for this is a major area that they should practice to be prepared in the actual teaching service.

1.1 Research Questions

1. What are the attitudes of the Meranao Pre-service Teachers toward the MTBMLE Policy?
2. What are the factors affecting the attitudes of the Meranao Pre-service teacher concerning MTBMLE Policy and their suggestions to foster the effectiveness of the implemented policy?

2. Methodology

2.1 Research Design

This research paper utilized both quantitative and qualitative designs to offer in-depth information about the given problem. Quantitative Research Design was used since the data to be gathered from the survey questionnaire were composed mainly of numbers, and was then liable for statistical analysis. Moreover, Qualitative Research Design were utilized as well by the way of an interview. Thus, these two research designs, when

combined to fully gather data regarding the problem of the study, had provided the researchers more accurate responses on the attitudes of the pre-service teachers toward the MTBMLE policy, the possible factor affecting such attitudes, as well as their personal suggestions to improve the effective implementation of the policy.

2.2 Research Setting and Participants

The study was conducted among the student teachers of the four (4) colleges in the city of Marawi in the province of Lanao Del Sur that offer education courses, since two of the researchers are bonafide residents of the said province specifically in the municipality of Marawi. Hence, such schools were chosen for convenience and ease access to the participants of the study. These institutions consist of the following: Mindanao State University – Main Campus (MSU – Main), RC Al – Khwarizmi International College Foundation Incorporated – Main (AKIC – Main), Philippine Muslim Teachers College (PMTC), and the Mindanao State University – Lanao National College of Arts and Trades (MSU – LNCAT). College students currently taking up Bachelor of Elementary Education will be approached to participate in the data gathering process of this study. A total number of fifty (50) respondents were randomly selected among the four (4) schools. Hence, there were an equal number of twenty (20) respondents taken from the MSU – Main Campus and ten (10) respondents taken from the rest of each institution. In conducting the interview, fourteen (14) percent of the total number of respondents were selected to participate. Thus, a total of seven (7) student teachers were interviewed from these schools, through a phone call with the approval and consent of the participants.

2.3 Research Instruments

This study administered two data gathering instruments; a survey questionnaire and an interview. The survey questionnaire was adapted and referred from varieties of studies. The statements used on the survey questionnaire were derived from three studies; fourteen (14) from the study of Berowa and Agbayani (2019), three (3) from the study of Montecillo and Lomboy (2014), and three (3) from the study of Valerio (2015). It was divided into two parts; the first part consisting of the socio-demographic profile of the respondents particularly their name, school, year and course, and mobile phone number, and the second part containing a list of twenty (20) statements aimed to ask for response regarding the attitudes of the participants toward the MTBMLE policy. These statements were answered through a 4-point Likert Scale, ranging from (4) Strongly Agree to (1) Strongly Disagree. The survey questionnaire was distributed to the participants through an online platform; it was sent through their Facebook accounts. Meanwhile, the interview was conducted through a phone call to collect data concerning the possible reasons influencing the attitudes of the participants toward the MTBMLE policy as well as their personal suggestions to help improve the effective implementation of the policy.

3. Results and Discussions

The attitudes of the pre-service teachers toward the implementation of the policy are very essential for they are the next teachers who will administer and make use of the policy. As argued by Noam and Sarah (2014), the attitudes of the teachers about the policy shall be centered and be recognized to ensure the efficacy of the program. Thus,

to identify the attitudes of the pre-service teachers toward the MTBMLE in the discourse of this investigation, the mean scores were determined as presented in Table 2.

Table 2. Attitudes of the Pre-Service Teachers toward the MTBMLE Policy

Item	Weighted Mean	Description
1	3.26	Strongly Agree
2	2.38	Disagree
3	1.64	Strongly Disagree
4	3.30	Strongly Agree
5	1.90	Disagree
6	3.64	Strongly Agree
7	3.40	Strongly Agree
8	2.50	Agree
9	3.40	Strongly Agree
10	3.26	Strongly Agree
11	3.08	Agree
12	3.20	Agree
13	3.58	Strongly Agree
14	3.26	Strongly Agree
15	3.38	Strongly Agree
16	3.50	Strongly Agree
17	3.44	Strongly Agree
18	3.56	Strongly Agree
19	3.54	Strongly Agree
20	3.60	Strongly Agree

Note: Scale: 1.0-1.74 = Strongly Disagree; 1.75-2.49 = Disagree; 2.50-3.24 = Agree; 3.25-4.0 = Strongly Agree

As shown in Table 2, the mean scores of almost all the statements depict that the pre-service teachers have favorable and positive attitudes toward the mother tongue based education policy. As presented, the statements 1, 4, 6, 7, 9, 10, 13, 14, 15, 16, 17, 18, 19, 20, were the highly agreed statements by the participants which simply declares the strong affirmation on the notion that learners will benefit a lot from the implementation of the MTBMLE policy. The results implied that students learn better and tend to acquire knowledge with any subjects when they are taught using the language they are also knowledgeable of and they are speaking.

Table 3. Statements with highly positive attitudes

Item	Weighted Mean	Description
1	3.26	Strongly Agree
4	3.30	Strongly Agree
6	3.64	Strongly Agree
7	3.40	Strongly Agree
9	3.40	Strongly Agree
10	3.26	Strongly Agree
13	3.58	Strongly Agree
14	3.26	Strongly Agree
15	3.38	Strongly Agree
16	3.50	Strongly Agree
17	3.44	Strongly Agree
18	3.56	Strongly Agree
19	3.54	Strongly Agree
20	3.60	Strongly Agree

Note: Scale: 1.0-1.74 = Strongly Disagree; 1.75-2.49 = Disagree; 2.50-3.24 = Agree; 3.25-4.0 = Strongly Agree

As presented in Table 3, the Meranao Pre-Service Teachers strongly favor the aforementioned items. The list of respondents that show strong affirmation with the utilization of MTBMLE Policy are most likely to number out the list of respondents that displayed negative attitudes. The result accentuated the notion that Meranao Pre-Service Teachers possess a strong affirmation that the use of mother tongue ensures quality learning and communication among learners. The highly agreed statements 'The use of Mother tongue along instruction in subjects such as Science and Math denotes easier, better learning among primary students', 'The use of Mother Tongue ensures quality learning among pupils' and 'Children cannot learn when education is in a language they do not understand' prove that in the learning process of students, the language used as a medium of instruction is such a great factor that is essential for teachers to efficaciously convey their lessons and for the learners to comprehend best what are being communicated to them.

Other than that, the statements 'The MTBMLE encourages students to interact more often during class discussions' and 'The use of the mother tongue during class discussions creates a friendly atmosphere in the classroom between teachers and students', prove that the utilization of mother tongue in classroom creates a learning environment that has a low tolerance of anxiety allowing students to freely participate and cooperate with one another as well as to communicate with teachers openly in a language they can best comprehend.

Additionally, the respondents of the study have great confidence that they are most likely to be comfortable in teaching students with the use of their mother tongue compare to foreign language English and national language Filipino. The pre-service teachers are most likely to teach in a language that they can enunciate and communicate with better, in the case of the respondents, it is their mother tongue. This

affirms the idea of Gallego and Zubiri (2013) who asserted that academic competence can be attained through the use of native tongue. The exclusive use of language that is most familiar to the learners, can promote linguistic skills making it easy to engage in academic activities (Naom & Sarah, 2014).

Table 4. Statements with negative attitudes

Item	Weighted Mean	Description
2	2.38	Disagree
3	1.64	Strongly Disagree
5	1.90	Disagree

Note: Scale: 1.0-1.74 = Strongly Disagree; 1.75-2.49 = Disagree; 2.50-3.24 = Agree; 3.25-4.0 = Strongly Agree

As presented in the Table 4, the statement 'Mother tongue literacy is not useful because there are very few mother tongue reading materials available' got the lowest mean which could mean that although it has been emphasized by Naom and Sarah (2014) that the lack of learning materials leads to the use of English as a medium of instruction, the participants of this study still believe that the use of mother tongue as a language of instruction in schools is effective regardless of the absence or scarcity of books and learning materials written in the mother tongue.

Furthermore, the statement 5 which is 'The mother tongue is not suitable to be used as an academic language' got the second lowest mean and the item 2 which states that 'Mother Tongue should only be used as a way to learn Filipino and English' got the third lowest mean which simply implies that the pre-service teachers are in opposition from the excerpt that mother tongue is not suitable to be used as an academic language because they believe that mother tongue, just like any language, is also qualified and can be utilized as a language for academic purposes. The respondents believe as well that the mother tongue can be used not only to learn Filipino and English but any other subject areas in school as well. As emphasized by Gallego and Zubiri (2013; cited in Berowa & Agbayani, 2019), the use of language which is new to the learners is often found to hinder education and communication. Accordingly, the best way achieve success in school is through the use of the language which is familiar to both students and teachers. This involves the use of mother tongue as a medium of instruction that starts with what the students already know and with what they already have.

Factors influencing attitudes toward MTBMLE

The data gathered for this study also demonstrated the factors which are considered to be influential to the attitude exhibited by the Meranao pre-service teacher respondents.

Meranao Pre-Service Teacher's beliefs

Savage (2019) accentuated the notion that the utilization of mother tongue as method for teaching will make it easier for children to pick up and learn lessons as well as other languages. She also highlighted that children taught in their mother tongue tend to adopt a better understanding of the curriculum, most likely to develop critical thinking and literacy skills than those who were taught with languages other than their first

language. Such belief are likely to showcase positivity towards the attitude presented by Meranao pre-service teachers who had been the respondents of this research endeavor.

Participant 1: Students are most likely to learn effectively if teachers teach them and talk to them in a language they know and understand. For instance, if we teach a particular concept to students using English Language in the entire time even if we are aware that our students are not good in comprehending and using it, we cannot expect them to grasp everything taught to them.

Participant 2: Teaching kids with their first language will lessen their anxiety and stress in learning. We all know that kids would really face a great adjustment since the transitions of the environment at home to school is a whole new thing for them. If they would be immediately taught with languages other than their mother tongue, difficulties in the learning process will exist since they would think that they will not be able to communicate well with their teachers.

Derived from the assertions proclaimed by the participants, Meranao pre-service teachers valued the utilization of the Mother Tongue in creating a learning that is free of anxiety. In that way, learners will not be intimidated to express themselves. Since, Meranao pre-service teachers had favorable encounters during their primary level years as they come up with the discussions well, making them have positive attitudes with MTBMLE.

Consequently, these factors that exist in this analysis strengthen the stands of Bernardo (2018) as she stresses out that learners begin their education effectively in a language they understand best. Mother instructions pave way for both teachers and students to communicate naturally and negotiate meanings together creating participatory learning environments that are conducive to cognitive as well as linguistic development. Children who are perceived to possess firm foundation in their first language are most likely to develop stronger literacy abilities and comprehend well.

Suggestions to improve the implementation of the MTBMLE Policy

The Meranao Pre-service teacher respondents deliberated some suggestions from their observations that will surely contribute for the improvement of the MTBMLE Policy in Marawi City. These suggestions involved supplementary finances/funding, MTBMLE learning materials, curriculum guide and most importantly pre-service teacher trainings and seminars.

Finances/funding

Berowa et.al, (2019) cited on their paper that the success of the MTBMLE Policy could be visualize on its educational programs. As articulated by most of the Meranao Pre-Service teachers throughout the interview, the effectiveness of the MTBMLE Policy depends on learning resources, teacher trainings, and curriculum designing which would totally require expenses from the government.

Participant 4: MTBMLE Policy requires funding from the government since lot of materials from basic text books, facilities and teacher training are expected to produced and accomplished for the sake of its effectiveness and success.

Participant 5: There might be resources but is limited.

Participant 6: My suggestion and my message to the government is to prioritize the improvement of this policy by preparing budget intended for this.

Participant 7: If we want success for this policy, great amount of support should be rendered by the government on its implementation.

It is overtly observable that Meranao pre-service teachers largely believe that MTBMLE Policy is more likely to succeed if additional funding and support on its implementation is rendered by the government. Other than that, Wa-Mbaleka (2014) as mentioned by Berowa (2019) states that the government must provide enough funding in order to solve the concerns rising with MTBMLE from basic text books, facilities up towards the pre-service teachers and teacher training programs.

MTBMLE learning materials

No teacher can teach effectively without appropriate learning materials that are based on two components: established government curriculum goals and pupil's prior knowledge. (Decker, et al., 2008). Teaching and learning cannot be operative without adequate and relevant use of instructional materials (Grant, 1978). Most of the interviewed pre-service teachers of Marawi City emphasized that MTBMLE policy requires a curriculum to be updated and text books and teaching materials should be sufficient as possible.

Participant 1: I think one problem the policy is facing right now is the availability of resources or materials to be used in teaching through the mother tongue.

Participant 3: How can teachers effectively teach without having references and learning materials? Books should be given a great emphasis.

Participant 5: Even if the implementation of the policy was years ago, there is still things to improve because challenges are still encountered by the teachers. One of these challenges is limited sources.

Undeniably, the goals of MTBMLE policy are not being achieved if there is deficiency of materials needed; hence there is a need for the provision of the books and instructional materials that are helpful to the learning of the pupils which will increase their understanding (Lartec et. al, 2014). Malone (2007) supported this notion as he emphasized that literacy can be maintained if an adequate and sufficient supply of leaning materials are available.

Pre-service Teachers' training

The respondents of this investigation also put trainings, workshops, programs and conferences into account of importance. The need for teacher's training should be address since it should be provided regularly. Other than that, academic support concerning numerous mother tongue teaching issues should be rendered by the policy makers and professionals behind the implementation of this policy.

Participant 5: The preparation of the teacher shall start during studying the course of Education program so that it will enhance the ability earlier and see the success of the policy in the future.

Participant 6: The preparation of the teachers shall also improve starting from their pre-service period and even after graduating.

Participant 7: Teachers should be trained since their knowledge pertaining to their mother tongue will not guarantee them to teach effectively using it.

From these excerpts, it is clear that majority of Meranao pre-service teachers necessitate the MTBMLE specialists to collaborate with the Department of Education. In that way, the issue concerning the lack of teacher's training would be addressed since productive seminars and workshops can only be primarily provided by these two institutions. Other than that, most teachers need training in methodology for them to exploit the advantages of teaching in the language that children can understand. (Dutcher, 2004) Since teachers appeared to struggle with the practical application of the Mother Tongue as language of instructions, seminars and trainings are greatly needed to provide orientation and guidance on how to handle the learners especially in a multilingual setting. (Berowa et. al, 2019) If this issue will not be given an attention, it will weaken the implementation of MTBMLE policy since it will cause for rote learning to occur, less peer-to-peer interaction and learners will be unmotivated to think for themselves, read and come up with their own conclusions.

In general, Meranao pre-service teachers displayed positive attitude toward the MTBMLE and these findings clearly prove it. The affirmative result yielded from this is such a stepping stone for MTBMLE Policy to achieve success. It is accentuated by Alieto (2018) that a pre-service teacher whose language attitude is positive are likely to be willing to teach in the mother tongue and willing to teach the mother tongue as a subject. The language attitudes toward the mother tongue then serve as an enabling and disabling factor in terms of the support and practice that the primary implementers, who are not only the teachers, but includes the student teachers who would sooner or later become teachers themselves, do which is very meaningful in relation to language-in-education policy (Jones, 2012 as articulated by Alieto, 2018) which Ingram (1989) supports by claiming that language attitude is part and parcel of language policy in education.

4. Conclusion

This current study illustrates the attitudes of the Meranao pre-service teachers that are taking Bachelor of Elementary Education - Major in General Education within Marawi City toward the MTBMLE policy as well as factors that influence their attitudes. Moreover, the study also presents suggestions to improve the implementation of the policy and to ensure its effectiveness. It should be emphasized that the involvement of the pre-service teachers must always be included in scrutinizing the effectiveness of a certain educational policy for they are the future teachers of the society, and it will be impossible to implement an educational system without the favorable attitudes of the teachers. Clearly, the study presents the positive attitude of the Meranao pre-service teachers toward the current educational policy in the Philippines despite the fact that there were still challenges experienced by the front lines of such policy. This actively illustrate that it is the responsibility of the Department of Education to provide implications for the

improvement of the policy and to maintain the positive attitude of the pre-service teachers in the Philippines. The DepEd shall also consider the given suggestions of the pre-service teachers especially when it will greatly improve the implementation of the policy. It must be bear in mind that to make a certain educational policy more effective, the involvement of the attitudes and perception of the pre-service teachers must be included to ensure its success for they are the aspiring teachers of our country.

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PROJECT JAR (Joy in Artistic Reading): An Innovation to Improve Pupils' Reading Skill

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Abstract. The study investigated the reading fluency and comprehension level of elementary learners. Similarly, PHIL-IRI pretest results revealed numerous frustration readers. Pupils have the difficulty in reading fluently the texts which resulted to poor comprehension. To address the reading problems, this study implemented an innovation named Project JAR (Joy in Artistic Reading) which aimed to help the frustration readers improve their fluency and comprehension skills. Thus, the participants of the study were the twenty five (25) Grade VI pupils for School Year 2019-2020. The study adapted a survey questionnaire of PHIL-IRI 2018 for both pretest and posttest to determine the participants' level of reading skills. Focus Group was conducted to find out how the intervention helped the participants in improving and developing their reading abilities. Data collected from pre-assessment and post-assessment tests were analyzed using descriptive statistics. Data gathered from Focus Groups were transcribed and analyzed. Findings revealed that there is an increase in the participants' level of reading fluency and comprehension skills. Performance output significantly helped learners in socializing with classmates. It also developed critical thinking and oral communication skills. Self-confidence was also enhanced which resulted to the improved reading fluency and comprehension skills.

Keywords: Project JAR, Artistic Reading, Comprehension, Fluency

1. Introduction

Reading is a crucial skill required for academic success and lifelong learning. Reading is also a means of constructing meaning and a tool of acquiring new knowledge. It is a keystone of instruction regardless of learners' ability because it sets the foundation for future progress and success in virtually all other facets of life. Reading is also vital especially in many school competitions. It is also an asset and a necessity to have a functional performance in school (Reyes, 2012).

In connection, the recent Phil-IRI pre-test result revealed several numbers of frustration readers. The need to help these numerous individuals challenged the teacher researcher to find out an intervention that suits the existing reading phenomenon. It is thus evident that tackling this reading phenomenon required program that increases reading skill among children (Memis & Bozkurt, 2013).

As observed, pupils are very enthusiastic and obedient in catering their obligations in school but still PHIL-IRI results show low reading performance. The researcher believes that there are lots of factors affected the reading performance of these challenged individuals. The teacher researcher is stimulated in administering the reading intervention

to improve reading skills. Hence, Tovli (2014) stated that one of the natural ways to enhance reading was through stories (reading, telling, retelling, acting, and singing). This was where the intervention to improve reading skills was anchored.

Relatively, this study is determined to address pupils' difficulty in reading. Primarily, frustration readers are the most concern of the project. It aims to help pupils with reading deficiencies. These includes phonological deficit, cannot read and speak fluently, lack of vocabularies, and poor reading comprehension. Hence, phonological deficit refers to pupils with speech sounds deficiency which was visible in every classroom. Decoding is when children are able to put sounds to letters in order to sound out written language. This happened when reader struggles the time they met new or unfamiliar terms, but typically decoding becomes easier with phonics instruction and repeated practice with reading out loud. It can refer to learners who cannot comprehend adequately to make meaning from text. However, there are learners who can decode beautifully but unfortunately they unable to retain what they have read and cannot made meaning from the text. It was on this context that Project JAR (Joy in Artistic Reading) is conceptualized to address the reading fluency and comprehension skills of pupils among Grade 6 level.

1. 2 Action Research Questions

The study determined the effect of Project JAR (Joy in Artistic Reading) to improve the reading skills of Grade VI pupils for School Year 2019-2020.

Specifically, it sought to answer the following questions:

1. What is the level of pupils' reading performance during the pre-assessment?
2. How does Project JAR help improve pupils reading skill in terms of fluency and comprehension?

2. Innovation

The innovation includes specific creative activities that help minimizes the reading problems. It follows the steps as emphasized in Bottom-up Approach of the reading process which depend on phonemic awareness and word-by-word decoding strategies in a story to be read. Early reading skills build upon each other until learners are reading with fluency and high levels of comprehension.

Reading fluently is the final step of Bottom-up approach. Once pupils are able to recognize words quickly, they begin to not only read text but improve comprehension, according to "Fluent Reading," published on the PBS website. Reading is an artistic improvisation. It is developed from a learned body of knowledge that is uniquely and individually interpreted. Reading must be light-hearted and enjoyable. It must be caught with imagination and vision. It involves creating own meaning and eventually ends with acting. Vorontsov (2012) specifies that reading people differ from non-reading to the fact that they are able to think in terms of problems, to grasp the whole and to identify conflicting relations of phenomena

Hence, simplifying the concepts read is what the researcher trying to convey. Its effective simplicity is seen in the following instructional activities:

- a.) Provision of clear with appropriate text of reading materials. These materials are printed in a tarpaulin or can be viewed in smart television. Resources must be eye captivating to sustain students' interests. Texts are simple, precise and relevant.
- b.) Presentation of short story. Effective reading teacher ensures that the words in the story match students' level of understanding. Stories must fit students age and realistic so that they can relate to the situation.
- c.) Guided practice with the teacher and group leader. It is the stage wherein the teacher gradually releases task responsibility to the learners (Pearson & Gallagher, 1983). Guided Practice is the transition phase where children take more control of their learning and the teacher slowly steps back. It will be done so that the teacher can monitor and support the pupils easily and quickly.
- d.) Comprehension Check. The teacher will provide test after reading a short story to ensure and check if the pupils understood the content.
- e.) Performance Output Presentation. The teacher will allow pupils to present their performance output through singing, acting or dramatization and drawing.
- f.) Provision of Constructive Feedback. To evaluate and improve pupils' performance, the teacher gives comments and suggestions as a guide of pupils in improving their tasks.

3. Action Research Methods

3.1 Participants

The participants of the study are the twenty five (25) pupils purposely chosen. The researcher has selected these frustration readers during the pre-assessment and they served as target of the intervention implementation.

3.2 Data Gathering Methods

In gathering the data, triangulation was considered. The data gathered were both qualitative and quantitative. Pre and post tests were conducted using PHIL-IR standard tools. Qualitative collection method or a Focus Group Discussion (FGD) was also undertaken to find out the responses of parents on the effect of Project JAR intervention. Both quantitative and qualitative data were tallied, summarized, and analyzed using descriptive statistics.

4. Results and Discussion

This section presents the analysis and interpretation of the data. After the PHIL-IRI pretest, posttest and Focus Group Discussion were conducted, computed and analyzed, the table below shows the findings.

1. What is the level of pupils' reading performance during pre-assessment?

Table 1.Pre-Assessment on Pupils' Reading Level

Grade Level	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Grade 4	1	4%	-	-
Grade 5	-	-	4	16%
Grade 6	12	48%	8	32%
Total	13	52%	12	48%

Legend: Independent=8 points, Instructional=6-7points, Frustration=0-5 points

The table illustrates the pre-assessment result of the reading performance of Grade VI pupils in terms of fluency and comprehension skills. The data shows that pupils' overall reading performance is described as frustration. Specifically, it reveals a total of 13(52%) male frustration readers. This implies that more than half of the population belongs to frustration level. Noticeably, pupils are slow during the early period of school year and reading capability would improve if reading problem would be provided with intervention. Teachers must find ways to help those who are struggling in reading.

It can also be gleaned that 12(48%) of the male pupils are at Grade 6 level of fluency and comprehension status. This means that reading fluency and comprehension matches the Grade 6 reading level status but it is sad to note that there is 1(4%) whose reading fluency and comprehension level matches the Grade 4 reading level status. This implies that intervention should be made possible to improve the reading performance. During the conduct of PHIL-IRI reading assessment this only one pupil cannot decode well. This is mainly the reason of not comprehending the concepts read and resulted as frustration. As observed, these frustration readers are those who are not interested, not sociable and oftentimes absent.

Although, a frequency of 12 (48%) of the female learners during pretest are frustration readers. This means a lesser number of females compare to males are in the frustration level. It might be that this group of individuals was inattentive during the reading process or reading habit was not yet established. It is a fact that concentration and reading habit affect learners' performance.

Same table 1 reveals a frequency of 8 (32%) of the female participants have reading level that matches the grade 6 level reading status. This means that minimal numbers of female pupils are at frustration level. But there are 4(16%) whose reading fluency and comprehension matches the grade 5 level status. Most probably these learners are those who experienced learning gaps while they were at grade 5 level. It could possibly be the academic difficulty experienced recently affects the reading performance.

Similarly, the study of Cabardo (2016) reveals that majority of the male students belonged to frustration level of reading proficiency. Males were less proficient in reading compared to females in both silent and oral reading in Philippine- Informal Reading Inventory (Phil-IRI). Therefore, the support on differentiated activities in teaching reading is definitely needed to narrow the achievement gap. Although, it takes a lot of preparation but it was found out to be effective to improve reading fluency and comprehension skills (Ankrum, 2008).

2. How does Project JAR help improve pupil's reading skill in terms of fluency and comprehension?

Table 2 Post-Assessment of Pupils' Reading Fluency Skill

Reading Level	Grade 5				Grade 6			
	Male		Female		Male		Female	
	F	%	F	%	F	%	F	%
Frustration	1	8%			2	15%	1	8%
Instructional	-	-	-	-	10	77%	8	67%
Independent	-	-	-	-	-	-	3	25%
Total	1	8%	-	-	12	92%	12	100%

Legend: Independent= 97-100%, Instructional=90-96%, frustration 89% and below

Table 2 illustrates word fluency during the post-assessment. Data demonstrate that there is a positive increase in fluency skills after exposing pupils to the intervention. The result shows that majority or 10 (77%) of the males gained reading fluency improvement classified as instructional. While 1 (8%) belonged to Grade 5 reading fluency level and 2(15%) of the males were at frustration level of Grade 6 reading fluency status. This manifests that intervention must be continued for it motivated learners to enjoy their reading engagement. As noticed, on the implementation of reading activities the pupils were attentive watching the videos and excited to do role playing. Reading aloud motivated them to utter words perfectly and fluently.

Meanwhile, there are 8 (67%) of the females achieved instructional level and 3 (25%) were independent level in fluency. These results imply that intervention perfectly suits the 21st Century learners. Differentiated activities must be provided to motivate consistently in reading. Oral reading, communication, role playing, and acting activities developed socialization and fluency in speaking. Based on the FGD conducted, parents revealed that they noticed improvement in oral speaking. It shows that the integrated differentiated activities were an effective tool in enhancing reading skills.

On the study conducted by Isabel, Sobol and Lindauer, (2015) it was found out the good effect of that connections between reading aloud and literacy success. Reading books aloud not only increases reading achievement scores but also fluency in reading words. Children who are frequently exposed to storybook reading are more likely to use complex sentences, have increased literal and inferential comprehension skills, fluency in recognizing words, gain greater story concept development, increase letter and symbol recognition, and develop positive attitudes about reading.

Table 3 Post Assessment of Pupils' Reading Comprehension Skill

Reading Level	Grade 5				Grade 6			
	Male		Female		Male		Female	
	F	%	F	%	F	%	F	%
Frustration	1	8%	-	-	3	23%	2	17%
Instructional	-	-	-	-	9	69%	8	66%
Independent	-	-	-	-			2	17%
Total	1	8%	-	-	12	92%	12	100%

Legend: Independent=8 points, Instructional=6-7points, Frustration=0-5 points

Table 3 presents the result of post-assessment of pupils' reading comprehension. Results reveal that there is only 1 (10%) male frustration reader belongs to Grade 5 level reading comprehension status and there are 3(23%) of the male are in frustration level of Grade 6 level status. This means that minimal number of learners remained as frustration reader. It also implies that intervention applied increased reading performance. As mentioned during the FGD conducted, parental problem affected the performance level of this learner.

Evidently, there are already 9(69%) of the male participants belong to Grade 6 instructional reading level. This reading improvement attests that intervention applied is effective. It was also observed that they were participative during the performance output presentations especially on the acting and singing activities. Hence, drawing activity was loved by male learners. Absences, poor reading habit, attention was diverted to gadgets, no parental follow ups, and family problem are the mentioned challenges during the Focus Group Discussion (FGD) which resulted to low comprehension. The need to address other factors that would also affect academic is vital and demandable.

Eventually, there are 2 (17%) female participants belong to frustration level despite the intervention implemented but lesser compared to pretest result. An improvement of reading performance is visible for there are 8(66%) instructional and 2 (17%) independent readers reflected on posttest. It was noticed that females developed socialization during the grouping activities. They also enjoyed acting and singing. It ignited their interest especially during the drawing activity for they can draw the things that they have understood on the story elaborated or viewed on screen. It also implies that interventions with buddy reading and reading aloud strategies are effective and efficient in improving the reading skills. Obviously, the remaining frustration learner is capable of reading but comprehension level is low. Intervention must continuously be sustained for it really uplifts and helps learner's develop fluency and comprehension.

Estremera (2018) elaborated that due to the fast evolving world and changing technology, it cannot be denied that sometimes reading is taken for granted. Former Department of Education Secretary Abad deplored the poor performance of the pupils' assessment test and said that the low scores in English, Mathematics and Science can be attributed to pupils' lack of ability in basic reading and comprehension. Eventually, it is recommended that effective teaching strategies and other activities may be devised by teachers to improve the level of reading comprehension. The developed reading primer must be utilized to augment not just the level of comprehension but the linguistic competence as well, infusing other interrelated skills such speaking, writing, listening and viewing. Parents, teachers and even school administrators should have constant monitoring of the learners' academic progress. A reading program like peer-pair/buddy reading and remedial reading may be provided. The intense remediation and also parental follow up may help improve reading comprehension.

Table 4 Result of the Focus Group Discussion (FGD)

Major Themes	Frequency	Percentage
1. Reading performance	6	86%

2. Reading intervention	7	100%
3. Development of Reading Performance	6	86%
4. Suggestion to Improve the Intervention	7	100%
5. Additional Inputs	7	100%

Reading Performance. There are 6 (86%) parents who noticed that the reading performance of their children is already improved. There are some letters that were improperly pronounced but they believe it was just normal at their age level. It is also observed that understanding of the texts is improved. One parent answered that he is willing to assist his child on reading. Thus, he noticed that his child prefers to watch television or play cellphone than practice reading at home. Also, enthusiasm in reading at home is not visible. Further, it is also mentioned that a child should be nearer to the text when reading because of eye problem. Also, reading Filipino words is easier compared to English words.

Reading Intervention. All parents mentioned that they know the intervention and commented that it is good for those who cannot read well and good for learners since they are always motivated to attend the differentiated reading activities. Parents are very happy because it helps their children on developing the reading skills. Differentiated activities are appreciated and it made their children excited during the output presentation day. Some parents also mentioned that they were engaged on preparing some props for the acting day. The intervention must be continued since secondary years would be much difficult if fluency and comprehension skills are not established during the primary years.

Development of Reading Performance. There are 6 (86%) of the parents commented that the reading invention has huge help for the pupils because they noticed an improved reading skills and learning gains. Particularly, parents noticed that fluency and comprehension development is increased. Although, some parents emphasized that no follow up was made at home. Some of the children prefer to watch television, play cellphone and watch YouTube even during school days.

Suggestion to Improve the Intervention. All parents replied that the reading practices in school must be continued to develop fluency in reading and improvement of comprehension. They also promised to support their sons and daughters in doing the reading activities.

Additional Inputs. All parents have shown gratitude for the improved reading performance. They also noticed that children strive to do reading and have asked some words difficult to understand. This implies that children show positive responses on the reading activities and that these activities should also be practiced at home. In fact some reading materials retrieved are signed by their parents.

5. Conclusions

In the light of the findings of the study, this conclusion is drawn.

It is understood that the reading performance of Grade VI participants is increased. The differentiated activities undertaken during the performance output day developed confidence, critical thinking, and creativity. The joy in artistic reading is very visible as it shaped the diverse 21st Century learners and became competent and fluent in reading. Finally, book talks by buddy reading and book talks by reading aloud strategies contributed to the improved fluency and comprehension skills of the pupils.

6 Recommendations

In light of the findings and conclusion, it is recommended that

1. Internal and External Stakeholders should consistently collaborate in sustaining the reading implementation with differentiated activities and initiatives.
2. Reading coordinators and teachers should employ reading aloud and buddy reading strategies to strengthen fluency and comprehension skills. Reading strategies and reading resources used must be introduced during In-Service Training or Learning Action Cell (LAC) for teachers.
3. School principals may consistently support this innovation and design related interventions for non-readers and average readers.
4. Future researchers may consider the findings of the study as additional reference when they embark on their own study on reading challenges among primary levels.

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Modified Self-Monitoring Tool: Feedback Mechanism For Learners With Disabilities During This Pandemic

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Abstract. The new landscape of education caused by pandemic restructured the teaching modality and the learning process. The Learners with Disabilities (LWD) greatly affected with the sudden change of the learning set-up. Parents and teachers have no choice but to make distance-learning work. Aside from the issue on disallowing face-to-face instruction, the deficiency of monitoring and assessment tool is the problem that motivated the researcher to design an innovation called Modified Self-Monitoring Tool (MSMT). The study participated with twenty-five SPED teachers handling SPED classes in one of the divisions of Region X. A survey questionnaire was used to gather the responses and was conducted via online platform through email. The findings revealed that before the implementation of the Modified Self-Monitoring Tool, the teachers used phone calls, text, and chat to follow-up the performance of the learners. The results also showed the advantages of using the MSMT. It is very helpful to the teachers because it facilitates communication between the learners and teachers during this pandemic. It is easy to use and understandable. It easily tracks the performance of the learners. It helps identify the weakness and strength of the learners. The MSMT greatly helps the teachers for assessing behavior change of the learners. It identifies specific target skills of each learner to focus for improvement. It used as an evidence for the parents to track the learners' performance (progress tracker). Thus, the Modified Self-Monitoring Tool is very effective to monitor and assess the learners' progress. It is recommended for further refinement of the tool for accuracy and standard.

Keywords: modified, monitoring tool, feedback mechanism, LWDs, distance learning

1 Rationale

The Department of Education designed a program for the learners with special educational needs. Special Education aims to develop the maximum potential of the child with special needs to enable him to become self-reliant and geared towards providing him with the opportunities for a full and happy life. It develops and maximizes the learning competencies, as well as inculcation of values to make the learners with special needs a useful and effective member of society. In addition, it tends to integrate or mainstream learners with special needs into the regular school system and eventually in the community.

The sudden outbreak of corona virus and become a pandemic, disrupted the routine schedule of the opening of classes. Consequently, compelled the schools globally to close the classes to prevent the spread of the virus. However, in the face of pandemic, education must continue. (Briones, 2020). Learners with special education needs require face-to-face instruction but are vulnerable to the coronavirus disease. Parents and teachers have no choice but to make distance-learning work (Sadia, 2020).

The new landscape of education caused by pandemic restructured the teaching modality and the learning process of the learners. The Learners with Disabilities (LWD) greatly affected with the sudden change of the learning set-up.

Several challenges arise on how to teach the LWDs without face-to-face interaction. The self-learning modules released from the Central and Regional Office intended only for formal education. There were no specific guidelines from the higher offices on the learning modalities and learning materials for SPED. The parents serve as school partners in teaching the children, yet they have no proper training to handle.

These are some challenges and issues encountered in the implementation of Modular Distance Learning (MDL) in Special Education Program. To resolve the issues, the Department of Education conducted orientations and training through webinars in the Division and Regional Level to the SPED teachers and parents of LWDs. Learning activity packages distributed to the teachers and parents.

Another concern arises on how to monitor and assess the daily performance of the LWDs when teachers cannot see their actual activities. Assessment is very essential in the teaching and learning process. It is a concrete basis in determining the progress of the learners. It is also a source for designing remediation and enhancement exercises and activities.

Thus, the researcher came up with the study on a Modified Self-Monitoring Tool as a feedback mechanism for the learners and teachers.

2 Innovation, Intervention, and Strategy

The problem on deficiency of monitoring and assessment tool for the learners with disabilities enabled the researcher to design an innovation to help the parents and teachers determine the daily performance of the learners.

Based on D.O. 31, 2020, Interim Guidelines for Assessment and Grading in Light of the Basic Education Learning Continuity Plan, the researcher constructed a Modified Self-Monitoring Tool (MSMT). The MSMT is crafted carefully for learners according to their educational needs. The special education teachers utilized the tools based on the disability and competency. It has monitoring tool for behavior management (MTB and English), Language and communication Development, gross motor skills, cognitive development, emotional development, physical development, self-help skills development, for alphabet letter name and letter sound, finger spelling etc. It is a sort of checklist if the learners successfully performed a particular skill or activity accordingly. The MSMT aligns with the competencies of the Learning Activity Packages (LAP) given to

each learner. An orientation to the parents on how to use the MSMT was conducted before the implementation.

During the retrieval of the self-learning modules, the teachers asked the parents on the completeness of the Modified Self-Monitoring Tool. The results of the MSMT were utilized as basis for the learning intervention and enhancement of the learners. It is also used as feedback mechanism of the learners' performance to discuss with the parents. The data gathered from the results of the MSMT helped the teachers and parents to improve the learning performance of the LWDs.

3 Action Research Questions

This study aimed to seek answer to the following questions.

1. How did special education teachers evaluate their LWDs learning behavior change before using the modified self-monitoring tool (MSMT)?
2. What are the advantages and disadvantages of using the modified self-monitoring tool?
3. What impact does modified self-monitoring tool (MSMT) serve as feedback mechanism to Special Education teachers?

4. Action Research Methods

4.1 Participants

The respondents of this study are the twenty-seven special education teachers, some are occupying an item, (SPET-1), and some are yet regular item for teacher (T-1), who handle Special Education classes in the different schools in the districts in one (1) of the division in Region 10.

4.2 Data Gathering Methods

This study is qualitative by nature. The researcher used questionnaire to gather the responses of the participants. The survey questionnaire is composed of three open-ended questions. The researcher conducted the survey via online platform. Before the conduct of the survey, an orientation was done to explain the SPED teachers about the study and its process of utilizing the Modified Self-Monitoring Tool. During the orientation, the respondents were explained about the annex E in Department Order #31, s. 2020, a self – Monitoring Tool for teachers in the regular students to use and the modified self monitoring tool for the learners with disability they are teaching. The participants gave their responses via email, the researcher consolidated the responses and presented in narrative form.

5 Discussion of Results and Reflection

Below are the consolidated responses of the SPED teachers on the survey questionnaire.

1. How did special education teachers evaluate their LWDs learning behavior change before using the modified monitoring tool?

During the pandemic where fact-to-face instruction is prohibited to ensure the safety of the learners and teachers, the teachers to track the learning progress of the learners applied different strategies. The teachers monitor through phone calls text, chat, and interview with the parents or caretakers. Have parents' orientation to discuss learners' progress on a regular basis during the distribution and retrieval of learning modules. Others prepared individual learning planned to ensure appropriateness of the learners' need. Some teacher created customized reading materials and sign picture words for reading activities to check their reading skills. Sometimes, a teacher scheduled a home visitation for extreme need of the learners with careful observance of health standard. Communication is very essential in Modular Distance Learning this time of pandemic. When information flows in one direction it is known as one-way communication. In this communication process, information flows form sender to receiver and receiver does not send any feedback to the sender. Feedback refers to the response or reaction of receiver to the sender's message. Feedback is the essence of communication and is the final step of communication process. Without feedback from the receiver, communication process remains incomplete. This feedback may be an oral or written message, or action or simply silence. (thebusinesscommunication.com)

2. What are the advantages and disadvantages on using the modified monitoring tool?

The modified monitoring tool is very helpful to the teachers. It facilitates communication to the learners even without the face-to-face interaction. It is easy to use and understandable. It easily tracks the performance of the learners. It helps identify the weakness and strength of the learners. With this tool, the teachers can easily design intervention to improve learners' least mastered skills. It carefully checks the important behavior that needs remediation and enhancement. However, since the modified self-monitoring tool tends to track the learner's individual performance, it is challenging and tasking to the teachers to design personalized monitoring according to each need. For the new LWDs enrollees, it is also hard for the teachers to design the monitoring tool in which they have not actually seen the learner. It is also difficult on the part of the parents who do not know how to handle/manage their children using the monitoring tool. Self-monitoring is a strategy that teaches students to self-assess their behavior and record the results. Though it does not create new skills or knowledge, self-monitoring does increase or decrease the frequency, intensity, or duration of existing behavior. It also saves teachers time monitoring students' behavior. Self-monitoring facilitates communication between students and their parent. (Moxley, 1998; Rock, 2005)

3. What is impact of modified self-monitoring tool as feedback mechanism to special education teachers?

The modified self-monitoring tool greatly helps the teachers for appropriately assessing the performance of the learners. It identifies specific target skills of each learner to focus for improvement. It used as an evidence for the parents to track the learners' performance (progress tracker). The results of the assessment will be used to classify strength and weaknesses of each student in formulating IEP and LAP. It easily assesses the readiness of the learner for the next lesson or additional activities for enhancement. It helps the special education teachers evaluate the child's acquired knowledge and help them with their least mastered topics. The modified self-monitoring tool ensure appropriateness of learners' assessment as feedback mechanism to improve their least mastered skills and designed additional intervention. True to the concept introduced by Mark Snyder (1970), he defined it as a personality trait that refers to an ability to regulate behavior to accommodate social situations. It is an effective tool for behavior change. ... Self-monitoring takes advantage of a behavioral principle: the simple acts of measuring one's target behavior and comparing it to an external standard or goal can result in lasting improvements to that behavior. (<https://www.google.com/search?q=self+monitoring+tool+meaning&oq=Self+monitoring+tool&aqs=chrome.5.69i59j0l5j69i61j69i60.10158j0j7&sourceid=chrome&ie=UTF-8>)

5.1 Reflection

In the new landscape of education caused by pandemic, learners especially those with special educational needs are having difficult times in coping with their school activities, which they used to have teachers around. The parents are also greatly affected because they are not trained to handle education of special learners. The teachers on the other hand, have much desire to teach the LWDs personally but prohibited for health reasons. Assessing the learning performance of the LWDs in distance learning is difficult especially that teachers did not personally see the actual performance of the learners. The teachers assess the performance of LWDs in actual performance of tasks. However, this new landscape of education hinders the face-to-face learning interaction, which is the most appropriate for the LWDs. Nonetheless, the modified self-monitoring tool that is intended to assess individually the performance of the learners will help the teachers and the learners communicate each other through the bridge (parents/guardians) that serve as feedback mechanism. Through this, the teachers can design personalized intervention for remediation and enhancement. Thus, despite of some disadvantages, the modified self-monitoring tool is an effective feedback mechanism for tracking the LWDs learning performance.

It is recommended for further improvement in designing individual monitoring for accuracy and standard.

6 Conclusion

Based on the results of this study the following conclusions were made:

Modified Self-monitoring tool provides more immediate feedback to learners at home. It clearly portrays improvement over time in behavior for both the student and the parents and parents to the teacher. The modified self-monitoring process engages teachers with the parents and learners. Modified Self-monitoring facilitates communication between

students and their parent. Modified Self-monitoring addresses each individual needs of the learners with disability that may includes academic and social skills like counting, reading, classifying, cooperating. The strategy increases parents' awareness of the behavior of their child and learners on their own. Modified Self-monitoring tool helps learners develop positive change in behavior and results. Teacher's effort will not be in vain and can really address the need of each of their learners. Thus, the Modified Self-Monitoring Tool is very effective feedback mechanism to monitor and assess the learners' progress.

7 Action Plan.

Table 1.

Activities	Objectives	Persons Involved	Timeline
Analyze the result of the study for further improvement.	To determine the areas need for improvement	Researcher School Head Teachers	May 2021
Conduct monitoring and feed backing with the teachers and parents	To ensure proper utilization of the Modified Self-Monitoring Tool (MSMT)	Conduct monitoring and feed backing with the teachers and parents	May 2021
Continue monitoring learners progress through the Modified Self-Monitoring Tool	To gather baseline data for the immediate intervention and enhancement of the least mastered skill of the learners.	Researcher School Head Teachers Parents	May 2021
Require teachers to submit learner's performance report monthly	To record the results of the activity sheets for monitoring and comparison of results.	Researcher School Head Teachers Parents	Second Week of May 2021
Consolidate the results of the activity sheets	To analyze and interpret the results	Researcher School Head Teachers Parents	Second Week of May 2021

Completion of the Study	To establish the results of the study and will do further intervention if necessary.	Researcher School Head Teachers Parents	Third Week of May 2021
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<https://iris.peabody.vanderbilt.edu/module/sr/cresource/q2/p04/>

Karanasan, Kasanayan, at Pananaw ng mga Mag-aaral ng HumSS sa MakaFilipinong Pananaliksik gamit ang Wikang Filipino

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Abstrak. Idinokumento ng pananaliksik na ito ang karanasan, kasanayan, at pananaw ng mga mag-aaral ng Humanidades at Agham Panlipunan (HumSS) sa pagbuo ng makaFilipinong pananaliksik. Pangkalahatang suliranin ng pananaliksik na ito ang malaman ang proseso, kasanayan, at kahalagahan ng paggamit ng wikang Filipino sa pagbuo ng makaFilipinong pananaliksik sa pananaw at karanasan ng mga mag-aaral ng Humanidades at Agham Panlipunan (HumSS) sa senior high school ng isang pribadong paaralang Fransiskano. Deskriptibong disensyo ang sinusunod sa pagbuo ng pananaliksik na ito. Upang masagot ang mga tiyak na layunin, ginabayan ang mananaliksik ng mga batayang metodo sa kalitatibo (pagsusuring pangnilalaman) at kantitatibong pananaliksik (pagbibilang at pagbabahagdan). Ang antas ng kahirapan ng kahirapan sa proseso ng pagbuo ng makaFilipinong pananaliksik ay 3.11 (katamtaman lamang). Ang mga kasanayang napaunlad sa pagbuo ng makaFilipinong pananaliksik ay ang mga sumusunod: pagbabasa (22 tugon), pagsasalita (15 tugon), pakikinig (13 tugon), pagsusulat (9 tugon), panonood (6 tugon). Dalawang pananaw ang nabuo mula sa paggamit ng wikang Filipino sa pananaliksik: (a) ang pagmamalaki sa isinagawang pananaliksik dahil sa Filipino ito naisulat; (b) mas naging malapit ang mga mananaliksik sa kalahok at materyal ng kanilang pag-aaral samantalang mas naiintindihan ang pinapanood at imaheng sinusuri dahil sa wikang Filipino.

Keywords: Araling Filipino, HumSS, makaFilipinong pananaliksik, wikang Filipino, dekolonisasyon

1. Panimula

Nag-umpisa ang pag-aaral na ito sa isang kritikal na pagsusuri sa isa sa mga itinurong specialized course ng mananaliksik para sa Humanities and Social Sciences (HumSS) strand. Taong 2016, ibinigay sa kaniya, bilang bago at kalilipat lamang na guro sa pinagtuturuan niya ngayon ang asignaturang Disciplines and Ideas in the Social Sciences.

Habang plinano ang buong semestre, napansin ng mananaliksik ang tila hindi balanseng pagtatala ng mga teoryang nabanggit sa naturang dokumento. Dominante ang pagtalakay sa mga Kanluraning teorya at kakaunting panahon na lamang ang matitira sa pagtalakay sa mga sulatin, ideya, at teoryang binuo mula sa mga makaFilipinong tradisyon.

Mula sa obserbasyong ito, may dalawang bagay ang nagtulak sa mananaliksik na magkaroon ng kritikal na interbensiyon upang mas maging makabuluhan sa kontekstong Filipino ang pagkatatuto ng mga mag-aaral ng Humanities and Social Sciences strand sa paaralang kaniyang pinagtuturuan. Una dito ang matagal ng obserbasyon sa larangan ng Araling Filipino ukol sa dominasyon ng mga teoryang banyagain sa Agham Panlipunan. Ikalawa, ang dominasyon ng wikang Ingles sa pananaliksik. Mahalaga ang ginagampanang papel ng wika sa pagsusulat ng mga akademikong papel dahil tinuturo nito ang mga mahahalagang usapin katulad ng sino ang magbabasa ng mga pananaliksik na isinagawa, kaninong interes ang isinusulong ng mga mananaliksik sa pagbuo ng kaniyang pag-aaral, kalakaran ng publikasyon, at higit sa lahat, ang kapakinabangan nito, partikular sa gawaing pangkomunidad.

Sumakto ang mga obserbasyong ito sa panawagan noon ng nagsisimulang Senior High School Department ng Immaculate Heart of Mary College – Parañaque tungo sa mga inobatibong paraan ng pagtuturo at programang magbibigay danas sa mga mag-aaral sa kung anong nangyayari sa disiplinaryang kanilang kinuha.

Mula dito, isinagawa ng mananaliksik ang LIKHA Seryeng Panayam para sa MakaFilipinong Pananaliksik – isang integrated performance task sa pagitan ng Disciplines and Ideas in the Social Sciences at Inquiries, Investigations, and Immersion.

1.1 Ang LIKHA Seryeng Panayam para sa MakaFilipinong Pananaliksik

Ang LIKHA Seryeng Panayam para sa MakaFilipinong Pananaliksik ay isang inisyatibang binuo ng mananaliksik upang mahasa ng mga mag-aaral ng Humanities and Social Sciences ang kanilang kasanayan sa pananaliksik mula sa lente ng Araling Filipino. Isinunod ang pangalan ng programang ito sa LIKHA o **L**ipunan tungo sa **I**Kauunlad ng **H**umanidades at **A**gham Panlipunan, ang opisyal na organisasyong pang-mag-aaral ng Humanities and Social Sciences strand ng Immaculate Heart of Mary College – Parañaque Senior High School Department. Nagsimula ito noong 2016 at sa loob ng limang taon, umunlad ang mga naging layunin, tunguhin, at produkto nito mula sa pagiging isang pang-klasrum na aktibidad hanggang maging isang programang pampapananaliksik at integrated performance task.

May tatlong layunin ang programang ito.

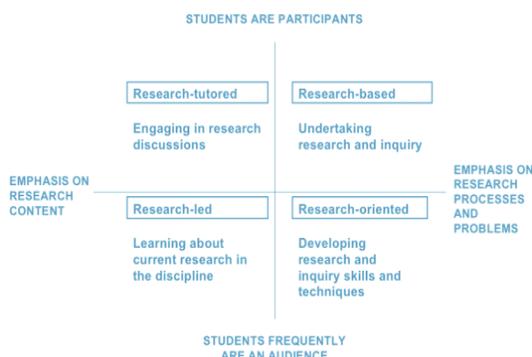
- a. makapag-imbiba ng mga iskolar, gradwadong mag-aaral, paham, manunulat, at artistang nagtataguyod ng Araling Filipino sa kanilang mga pananaliksik;
- b. magamit ang wikang Filipino sa proseso ng pagsusulat – mulang konseptwalisasyon patungong depensa (para sa taong 2021, ilalagay na dito ang publikasyon at pagpresenta sa mga kongresong pampananaliksik)
- c. makabuo ng mga pananaliksik gamit ang kolaboratibong lapit sa pagitan ng mga mag-aaral at ng kanilang tagapayo.

1.2 Tuntungang Konseptwal na Balangkas ng Programa

Nakasandig ang implemetasyon ng programang ito sa dalawang konseptwal na balangkas – ang makaFilipinong pananaliksik at ang pagtuturo ng pananaliksik na may tiyak na tugon sa pangangailangan ng mga mag-aaral ng Senior High School.

Ayon kay Rhoderick Nuncio at Elizabeth Morales – Nuncio (2004), maituturing na makaFilipino ang isang pananaliksik kapag nagtataglay ito ng dalawa o higit pa sa mga elementong ito: (a) paksain, (b) puntodebista, (c) metodo, (d) pagteteorya, (e)kapakanan, at (f) wika.

Samantala, upang magabayan ang klase sa kolaboratibong pananaliksik, ginamit ang modelo ng pagtuturo ng pananaliksik nina Healey and Jenkins (2009). Ayon sa kanila, may apat na pamamaraan upang maengganyo ang mga mag-aaral na bumuo ng kanilang mga pag-aaral – (a) research-led o pag-alam sa mga research trend sa disiplina; (b) research-oriented o pagdebelop sa mga kasanayan at teknik sa pananaliksik; (c) research-based o pagbuo ng pananaliksik; at (d) research-tutored o pakikilahok ng mag-aaral sa mga diskusyong pampananaliksik. Bagaman ang konteksto ng modelong ito ay para sa mga kumuha ng undergraduate degree sa kolehiyo at pamantasan, minarapat ng mananaliksik na gamitin ito upang maihanda na rin ang mga mag-aaral sa mga kahingiang kasanayang pampananaliksik sa lalong mataas na edukasyon.



Larawan 1. Ang Modelo sa Pagtuturo ng Pananaliksik nina Healey and Jenkins (2009)

1.2 Mga Suliraning Pampananaliksik

May dalawang action researches ang nabuo mula sa ebalwasyong isinagawa ng mananaliksik. Ang unang action research (isang hiwalay pang papel) ay ang diskursong nabuo mula sa mga pananaliksik ng mga mag-aaral at ang ikalawa, ang pokus ng pag-aaral ang karanasan, kasanayan, at pananaw ng mga mag-aaral ng HumSS strand sa paggamit ng wikang Filipino sa pagbuo ng makaFilipinong pananaliksik.

Sinagot ng pag-aaral na ito ang mga tiyak na suliranin:

1. Ano ang antas ng kahirapan (level of difficulty) ang naranasan ng mga mag-aaral ng Humanidades at Agham Panlipunan (HumSS) sa proseso ng pagbuo ng makaFilipinong pananaliksik?
2. Ano-anong mga kasanayan ang napaunlad ng mga mag-aaral sa pagbuo ng makaFilipinong pananaliksik?
3. Ano ang pananaw ng mga mag-aaral ng Humanidades at Agham Panlipunan sa paggamit ng wikang Filipino sa pagbuo ng makaFilipinong pananaliksik?

2. Metodolohiya

2.1 Metodo ng Pananaliksik

Deskriptibong disensyo ang sinusunod na balangkas sa kasalukuyang pag-aaral. Sa pagsusuri ng mga datos, ginabayan ang mananaliksik ng mga batayang metodo sa kalitatibo (pagsusuring pangnilalaman) at kantitatibong pananaliksik (pagbibilang at pagbabahagdan)

2.2 Mga Kalahok sa Pananaliksik

Mga naging mag-aaral ng mananaliksik ang mga kalahok ng pag-aaral na ito. Ikatlong batch sila ng mga nagpakadalubhasa sa Humanidades at Agham Panlipunan sa isang pribadong paaralang Fransiskano. Nagtapos sila noong 2020.

2.3 Instrumentong Ginamit at ang Balidasyon Nito

Upang masagot ang unang tiyak na layunin, binalikan ng mananaliksik ang mga kasanayang pampagkatuto mula sa batayang kurikulum ng Inquiries, Investigations, and Immersion. Dahil nakasulat sa wikang Ingles ang mga nakatalang kasanayan, isinalin lahat ng mananaliksik ang mga ito sa wikang Filipino, ginawang five-rated na likert scale, at paulit-ulit na inedit ang pagkakasalin at porma nito. Sa ikalawang bahagi naman ng instrumento, may partikular na parte kung saan sinagot ng mga mag-aaral ang katanungang, Ano-ano ang mga makrong kasanayan ang napaunlad dahil sa paggamit ng wikang Filipino? Ipaliwanag. Para naman matugunan ang ikatlong tiyak na layunin, sinagot ng mga mag-aaral ang tanong na, Sa iyong pananaw, ano ang pinakamahalagang aral ang iyong natutunan sa paggamit ng wikang Filipino sa pagbuo ng karunungan? Dumaan sa balidasyon ang instrumentong ito at nabigyan ng mahusay na marka ng mga validators (4.9 = very much valid) ang ginawang instrumento ng mananaliksik. Mas pinili ng validators ang bersiyong Google form ng instrumento dahil mas mainam ang porma nito sa pangangalap ng datos sa panahon ng pandemya.

2.4 Pagkalap at Pagsusuri ng mga Datos

Sa pagkalap ng mga datos, sinunod ng mananaliksik ang rekomendasyon ng validators na gamitin ang bersiyong Google form ng instrumento. Ipinadala sa mga mag-aaral ang link ng Google form at binigyan sila ng isang lingo upang sagutan ang instrumento. Ang prosesong ito ay nagtagal mula 16 Mayo hanggang 23 Mayo 2020.

3. Pagtalakay sa Resulta ng Pananaliksik

Unang Suliranin: Ano ang antas ng kahirapan (level of difficulty) ang naranasan ng mga mag-aaral ng Humanidades at Agham Panlipunan (HumSS) sa proseso ng pagbuo ng makaFilipinong pananaliksik?

Talahanayan 1. Ang Antas ng Kahirapan sa Paggamit ng Wikang Filipino sa Bawat Bahagi/Proseso ng MakaFilipinong Pananaliksik

Bahagi at Proseso	Mean	Intepretasyon
Suliranin at ang Kaligiran Nito	2.95	katamtaman lamang
Mga Kaugnay na Panitikan at Pag-aaral	3.76	Mahirap
Pag-unawa sa Pangangalap ng mga Datos	2.76	katamtaman lamang
Paghahanap ng Kasagutan sa mga Suliranin ng Pag-aaral	3.4	katamtaman lamang
Pag-uulat ng Resulta, Kongklusyon, at Rekomendasyon	2.86	katamtaman lamang
Pagdependa ng Pananaliksik	2.95	katamtaman lamang
Kabuuan	3.11	katamtaman lamang

Sa pangkalahatan, ipinapakita sa itaas na nakaranas ng katamtaman lamang o 3.11 over-all mean ang mga mag-aaral sa paggamit ng wikang Filipino sa kanilang pananaliksik. Kung tutuusin, walang resulta ang lumabas na lubhang madali, madali o lubhang mahirap sa bahaging ito ng pag-aaral ngunit kapansin-pansing mahirap (3.76) ang pinagdaanan ng mga kalahok sa pagbuo ng ikalawang parte ng kanilang pag-aaral, ang Mga Kaugnay na Panitikan at Pag-aaral. Isang mahalagang usapin sa mahirap na resultang ito ay ang **pagsasalin** ng mga batayang konseptong kailangang maipaliwang at mailapat sa pinag-aaralang penomenon, Ayon sa ilang mga kalahok, "sa paghahanap ng RRL, kapansin-pansing nasa wikang English nakasulat ang mga ito (kalahok, 26)" kung kaya "nahirapan ako sa pagsasalin ng mga salitang Ingles at sa tamang paggamit ng gramatikang Filipino (kalahok, 20). Gayumpaman, sa buong proseso ng pagsulat nila ng pananaliksik, nabigyan naman ng pagkilala ang interbensiyong isinagawa ng mananaliksik upang matugunan ang pangangailangan sa pagsasalin. Halimbawa ng mga gawaing ito ay ang "pagtatama sa ispelang at pagbibigay ng ideya upang mapaunlad ang konstruksiyon ng mga pangungusap (Kalahok, 8)," "one-on-one session after class para maipaliwanag ang teorya at pagsasalin (Kalahok, 6)," at "crash course sa wikang Filipino dahil ayon sa aking adviser, magkaiba ang Tagalog at Filipino sapagkat ang Filipino also consists of a lot of indigenous and foreign languages (Kalahok, 4). Bukod dito, katamtaman lamang ang antas ng kahirapang naranasan ng mga-aaral sa bahaging Suliranin at ang Kaligiran Nito (2.95), Pag-unawa sa Pangangalap ng Datos (2.76), Paghahanap ng Kasagutan sa mga Suliranin ng Pag-aaral (3.4), Pag-uulat ng Resulta, Kongklusyon, at Rekomendasyon (2.86), at Pagdependa ng Pananaliksik (2.95).

Ikalawang Suliranin: Ano-anong mga kasanayan ang napaunlad ng mga mag-aaral sa pagbuo ng makaFilipinong pananaliksik?

Talahanayan 2. Mga Kasanayang Napaunlad sa Pagbuo ng MakaFilipinong Pananaliksik gamit ang Wikang Filipino

Mga Kasanayan	Bilang
Pagsasalita	15
Pagbabasa	22
Pakikinig	13
Pagsusulat	9
Panonood	6

Sa talahanayang nasa itaas, lumalabas na napaunlad ng programa ang mga mahahalagang makrong kasanayan sa paggamit ng wikang Filipino sa pagbuo ng makaFilipinong pananaliksik. Pinakamataas sa lahat ng kasanayang ito ang pagbabasa (22 tugon), na sinundan ng pagsasalita (15), pakikinig (13), pagsusulat (9), at panonood (6).

Tumutukoy ang pagbabasa sa exposure ng mga mag-aaral sa mga babasahing sinulat ng mga Filipinong iskolar na nakasulat sa wikang Filipino. Tumutukoy din ito sa familiarisasyon sa mga babasahing akademiko. Maaari din itong tumukoy sa pagbabasa ng mga mag-aaral sa itinuturing nilang mga “malalim na salita.” Dahil sa pagbabasang inirerekomenda ng guro sa kaniyang mga mag-aaral, nagkaroon sila ng pagkakataong mapataas ang kamalayan sa diskursong umiinog sa agham panlipunan at Araling Filipino sa ating bansa. Narito ang ilang tugon ng mga mag-aaral sa kasanayang ito:

Mas nauunawaan ko ang mga bagay na hindi ko naiintindihan dahil sa pagbasa ng mga libro o sa mga sinesearch ko sa paglikha ng aking pag-aaral.

Mas naging kritikal ako sa aking binasa dahil sa mga naituro sa amin ng aming adviser at guro namin sa Araling Filipino. At dahil din pinabasa nila sa amin na may mga malalalim na salita.

Dahil mas naging kritikal ako at mas naiintindihan ko agad yun mga bagay kapag basa lang nang basa kagaya na lang nga ng ginawa ko nung gumagawa ako ng aking pananaliksik.

Marami akong kinailangang basahin at intindihin para sa aking papel kaya naman mas natuto ako na magbasa na may malalim na pag-unawa o ang pagiging kritikal upang mas maintindihan.

Sa bahagi naman ng pagsasalita, napaunlad ng programa ang paggamit ng wikang Filipino sa pakikipagtalastan hindi lamang sa klase mismo, kundi pati na rin sa mga kalahok ng kanilang pag-aaral, lalo na sa mga nagsagawa ng pakikipagkuwentuhan, padalaw-dalaw, at patanong-tanong bilang metodo o lapit sa pagkuha ng mga datos. Mas nagkaroon din sila ng kompiyansa sa sarili dahil komportableng nagagamit ang wikang Filipino sa pakikipag-usap. Narito ang ilang mga tugon mula sa mga mag-aaral.

Sa tingin ko ay mas nag-improve ang pagsasalita ko sa wikang Filipino. Marami kasi sa mga salita na nakakabulol, kaya mahirap bigkasin kapag binabasa o ng malakasan o sa harap ng mga tao. Mabilis ako magsalita sa wikang Ingles, pero medyo mahina at mabagal ako pagdating sa Filipino.

Nagkakaintindihan kami ng aking mga respondent dahil sa iisang lenggwaheng binibigkas.

Samantala naman, sa pakikinig, natuto ang mga mag-aaral na magkaroon ng koneksiyon sa kuwentong-buhay na ibinabahagi ng mga kalahok at para naman sa mga gumawa ng mga pananaliksik larangan ng media studies, mas naging malay sa mga mensaheng nakakubli sa bawat salitang naririnig sa materyal. May mga pagkakataong nababanggit ng mga mag-aaral na mahalaga ang pakikinig lalo na kung may one-on-one consultation sa guro. Narito ang ilang mga sipi.

Mas nagawa ko na umunawa at sumunod sa binigay na mga instructions at dapat makinig sa sinasabi ng research adviser.

Naunawaan ko na ang pakikinig ay napakaimportante dahil ito mo malaman kung ano ang gusting ipahayag o pinapaliwanag ng isang bagay o ng tao. Tulad na lang ng panonood at pakikinig ko sa commercial para sa aking pag-aaral, isa rin sa paraan ang pakikinig sa pag-aanalyze ko sa pinapakitang larawan o karakterisasyon ng Ama sa commercials. Ang pakikinig ay mahalaga rin tuwing nagpapaconsult ka sa research adviser dahil nakakatulong talaga ang mga sinasabi niya sa kung ano ang nararapat na ayusin at kung paano pagandahin ang pag-aaral.

Sentro naman sa kasanayang pagsulat ang naging improvement o pag-unlad sa pagsusulat gamit ang wikang Filipino. Naging partikular ang mga mag-aaral sa usapin ng akademiko at pormal na pagsulat, gramatika, tamang paggamit ng bantas, paglawak ng bokabularyo, at ang pagsasanay sa pagsulat sa wikang Filipino lalo na sa mga mas madalas na nagsusulat sa wikang Ingles. Narito ang mga sipi bilang pansuporta.

Mas naging maayos ang aking pagsulat sa gamit ng wikang Filipino sa aking pag-aaral. Aaminin ko na hindi perpekto ang aking pagsusulat, ngunit sa tingin ko, mas nag-improve ang aking pagsulat dahil mas naunawaan ko ang mga ibang salita na hindi ko masyado nagagamit na puwede ko palang gamitin sa aking pagsusulat.

Sa pagsusulat, naging maingat at dapat konektado ang lahat ng aking magiging kongklusyon at naging maalam din ako sa mga malalalim na salita. At kailangan maging brief lang yung mga sinusulat pero dapat andoon na lahat ng gustong sabihin.

Mas yumabong ang aking pagsusulat mula sa paglalagay ng tamang gitling, kuwit, at marami pang iba.

Para naman sa mga iilang gumawa ng pananaliksik sa araling media, napaunlad ng makaFilipinong pananaliksik ang kasanayan sa panonood dahil ayon sa mga mag-aaral, mas lumalim ang kanilang interpretasyon sa mga imaheng nakapaloob sa pinapanood, kabilang ang mga simbolong nakabalot sa mga karakter na sinusuri at

ang mga kilos at pananalitang nagbibigay kulay sa karakterisasyon. Narito ang ilang mga sipi.

Dahil content analysis ang aking ginawa ay mas naging kritikal ako sa aking pinapanood hindi lamang isa o dalawang beses ko pinapanood ang mga videos. Kinakailangan ko pang ulit-ulitin ang ilan upang makuha at maintindihan ko nang mas malalim ang mga nais kong alamin. Mas natutunan ko na pansinin ang lahat ng nangyayari sa video at intindihing Mabuti dahil Filipino ang ginamit sa isang mas malalim na paraan at hindi parang nanonood lamang na walang saysay.

Mas lumalalim ang aking interpretasyon sa aking panonood. Dahil nasanay ako na ianalyze ang mga bawat kilos, galaw, at sinasabi ng mga tao o karakter sa palabas.

Ang mga resultang ito ay sumasang-ayon sa mga iminungkahing kasanayan na kailangang malinang sa Filipinolohiya ni Magahis (2011). Ayon sa kaniya, may apat na makrong kasanayan kailangang kolaboratibong mahulma sa mga mag-aaral na gumagamit ng ganitong lente ng pananaliksik – pakikinig, pagsasalita, pagbasa, at pagsulat. Sa pag-aaral na ito, lumabas na kailangan din ng panonood bilang kasanayang kailangang mapaunlad sa pag-aaral ng Araling Filipino.

Ikatlong Suliranin: Ano ang pananaw ng mga mag-aaral ng Humanidades at Agham Panlipunan sa paggamit ng wikang Filipino sa pagbuo ng makaFilipinong pananaliksik?

Dalawang kategorya ang nabuo mula sa pagsusuring pagnilalaman ng mga kalitatibong datos sa bahaging ito. Ang unang kategorya ay ang pananaw ng mga -aaral ukol sa pagpapahalaga sa wikang Filipino bilang akademikong wika at ang ikalawa ay ang pakikipagkapwa.

Unang kategorya: Ang Filipino bilang Akademikong Wika

Sa kategoryang ito, lumabas ang ilang mga realisasyon ng mga mag-aaral nang magamit nila ang wikang Filipino sa pananaliksik.

Unang-una na rito ang pagturing sa wikang bilang seryosong wika sa mataas na uri ng pagdidiskurso. Mas matagal ang naging exposure ng mga mag-aaral sa Ingles bilang wika ng pananaliksik, matatag man o mahina ang pundasyon ng kanilang mga kasanayan. Sa puntong ito, nailubog ang mga bata sa gawaing mas malapit sa kanilang mga sarili at naipapaliwanag pa nila ito sa wikang mas komportable silang gamitin. Ayon nga sa isang tugon, " Mahalaga ang wikang Filipino. Hindi dapat magpadala sa kanluraning ideolohiya na ang wikang Ingles ang superior na wika dahil ang wikang Filipino ay wikang akademiko rin." (Kalahok, 24).

Ikalawa, mas nabigyang halaga ng mga mag-aaral ang paggamit ng wikang Filipino bilang mahalagang bahagi ng kulturang Filipino. May ideolohikal na implikasyon ito dahil lagpas sa wika, mas naging malinaw na sa mga mag-aaral na kailangang magbasa din ng mga ginawa ng mga Filipino, mas pagtuunan ng pansin ang mga teoryang binuo ng mga Filipino, at mas pagtuunan ng pansin ang kulturang sinasalamin ng wikang ito. Ayon sa isang tugon, "Para sa akin, gamitin natin ang sariling teorya natin na pasok sa ating pananaliksik dahil mas nakakatulong ito at mas maiintindihan natin

dahil mayroon na tayong kaalaman patungkol doon” (Kalahok, 5). Dagdag pa rito, “ Mahalaga din talaga na magbasa ng mga librong may malalim na salita upang pag tayo ay nakipag-usap sa mga propesyonal ay maintindihan ang kanilang mga sinasabi o nais sabihin” (Kalahok, 12).

Ikalawang Kategoriya: Ang Pakikipagkapwa

Umusbong konseptong ito dahil kapansin-pansin sa naging karanasan ng mga bat ana kapag ginagamit ang wikang Filipino, mas nagiging malalim ang pakikisalumuha nila sa daigdig. Mas nagiging malalim ang ugnayan sa sinusuri at pinapanood o kaya nama’y napapasok ng mga mag-aaral ang loob ng kanilang mga kalahok. Sa mga paksaing may kinalaman sa pagkaFilipino, napalapit sa mga mag-aaral ang daigdig lalo na’t nagamit pa nito ang wikang Filipino. Ginamit ang wikang Filipino bilang wika ng komunikasyon. Ibig sabihin, para sa mga mag-aaral na nagtungo sa field work, nagkaroon sila ng immersion o paglubog sa mga realidad ng buhay na marahil hindi pa nila nararanasan. Sa mga gumamit naman ng audio-visual na mga teksto ng pananaliksik, nagsilbing lunsaran ang wikang Filipino upang masuri ang iba’t ibang representasyon ng pagkaFilipino sa virtual na mundo. Ano man ang mundong kinalubugan ng mga mag-aaral, mas naiintindihan nila ito dahil nagsalita ang mga mundong ito (ang mundo ng mga kalahok at ng virtual na mundo) sa wikang naiintindihan nila. Narito ang ilang mga sipi:

Ang pinakamahalaga kong natutunan sa wikang Filipino sa pagbuo ng pananaliksik ay ang pakikisama sa kapwa dahil nga gumagamit ako ng metodong pakikipagkuwentuhan at dahil nga sa metodong ginamit ko ay mas nagawa ko nang maayos ang aking pananaliksik at mas lumalim din ang pagkakaintindi ko sa mga kalahok ko.

Mas nakakarelata ako sa pinapanood ko kasi malapit sa experience ko ang topic ng videos. Parang pinapanood ko ang sarili ko.

4. Kongklusyon

Sa pananaliksik na ito, layunin ng mananaliksik na alamin ang karanasan, kasanayan, at pananaw sa paggamit ng wikang Filipino sa pagbuo ng makaFilipinong pananaliksik. Gamit ang deskriptibong disenyo ng pananaliksik, lumabas ang mga sumusunod na resulta.

1. Lumabas na katamtaman lamang (3.11) ang antas ng kahirapan na nararanasan ang mga mag-aaral ng HumSS sa proseso ng pagbuo ng makaFilipinong pananaliksik. Nahirapan sa bahagi ng pagsasalin sa mga binabasang kaugnay na pag-aaral at panitikan ngunit natugunan naman ito ng mananaliksik sa pamamagitan ng paggabay sa mga mag-aaral.
2. Napaunlad ng LIKHA Seryeng Panayam para sa MakaFilipinong Pananaliksik ang mga mahahalagang makrong kasanayan sa pagbuo ng makaFilipinong pananaliksik. Kabilang dito ang pagbabasa (22 tugon), pagsasalita (15 tugon), pakikinig (13 tugon), pagsusulat (9 tugon), at panonood (6 tugon).

3. Ayon sa pananaw ng mga mag-aaral, dahil sa paggamit ng wikang Filipino sa makaFilipinong pananaliksik, nabigyan nila ng pagpapahalaga ang ang wikang Filipino bilang akademikong wika at napaunlad nito ang kanilang pakikipagkapwa.

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Inobasyon sa Pagbasa: Adaptasyon sa mga Hamon ng Ika-21 Siglong Mag-aaral Tungo sa Kasanayan sa Pagbasa

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Abstrak. Ang aksyon risert na ito ay naglalayon na matukoy ang mga inobasyon sa pagbasa ng mga mag-aaral ng ika-21 siglong na tutugon sa kanilang mga hamon bilang bahagi ng mga tinatawag na Digital Natives sa tulong ng mga kasanayan at/o estratehiya sa pagbasa upang makamit ang kanilang komprehensyon. Ang mga respondente sa pag-aaral na ito ay mula sa limampung (50) mag-aaral sa Ikasampung Baitang ng Pamantasan ng Silangan-Kalookan. Gumamit ng talatanungan na inihanda ng mananaliksik upang matukoy ang mga hamon na kinahaharap ng mga mambabasa ng ika-21 siglo, ang mga kasanayan at/o estratehiya sa pagbasa batay sa tatlong kategorya: media literacy, information literacy at digital literacy. Lumabas sa resulta ng pag-aaral na ito ang paggamit ng 'social media platforms' ay may malaking ginagampanan upang maging kasangkapan sa pagtugon sa kasalukuyang hamon ng mga mag-aaral sa pagbasa samantalang ang mga kasanayan at/o estratehiya sa pagbasa tulad ng panonood ng animation, pagbabasa ng 'blogs' at mga 'trending issues' sa social media ang mga kinawiwilihan ng mga mag-aaral ng ika-21. Sa pamamagitan ng mga nabanggit na hamon at kasanayan at/o estratehiya ay naipakita na may malaking kaugnayan ang mga ito sa pagbasa ng mga mag-aaral ng ika-21 siglo.

Mga Susing salita: inobasyon, pagbasa, estratehiya, literacy, social media platform

1 Panimula

Sa tatlong magkakasunod na taon ng aking pagtuturo sa mga mag-aaral sa Ikasampung Baitang ng Pamantasan ng Silangan-Kalookan buhat sa aking pagtuturo mula sa Elementarya sa loob ng limang taon, nababatid ko ang isang malaking hamon na kinahaharap ko sa aking mga mag-aaral. Maaaring isang malaking hamon na noon pa man sa kaguruan, ang hamon sa paghasa sa kasanayan ng mga mag-aaral sa pagbasa at ang pagbibigay sa kanila ng motibasyon sa paglalaan ng oras sa gawaing ito. Kung paano sa ganitong antas na ay mas patuloy silang mawili sa pagbabasa at mapaunlad ang kanilang komprehensyon. Sa kabila ng aking motibasyon sa pagtuturo sa araw-araw kasama ang mga gawain at kagamitan sa pagtuturo na aking hinahanda, nakikita ko pa rin ang kahirapan na makuha sa aking mga mag-aaral, hindi man sa lahat ngunit may karamihan pa rin ang bilang, na hindi ginagawa ang kanilang gawain sa pagbasa, kung gawin man ito ng iba ay walang komprehensyon. Ano pa't higit lalo ngayong henerasyon na hindi lamang pagbasa ang kalaban kundi maging ang kanilang komprehensyon sa mga babasahing pang-akademiko. May pagkakataon na gumagamit ako sa aking pagtuturo ng animation, multimedia at

powerpoint sa akdang aming tinatalakay at makikita sa aking mag-aaral ang interes upang manood at makinig ngunit kalaunan makikita ang kabagutan sa kanilang mga mukha kaya kinakailangan na akin itong pasukan ng iba pang estratehiya sa pagtuturo na karaniwan ay nasa tradisyonal na paraan.

Bilang guro ng linggwistika at literatura batid ko ang gampanan upang hasain ang kasanayan sa pagbasa at komprehensyon ng aking mag-aaral, kaya naman tuwing gumagawa kami ng silabus at pang-araw-araw na gawaing pampagkatuto (daily learning plan) lagi kong isinasaisip kung anong estratehiya ang aking gagamitin na ukol sa babasahin na aming tatalakayin, kung akma ba ang ganitong pag-atake upang aking makamit at ng aking mag-aaral ang antas ng kasanayan na kanilang dapat matamo pero ganoon pa man, may pagkakataon pa rin na aking natutunghayan ang kawalan ng interes o mataas na interes ng aking mag-aaral sa akdang kanilang binabasa o likas na walang hilig magbasa ng mga akdang pampanitikan na laman ng librong aming ginagamit.

Minsan sa gitna ng talakayan isa sa aking mag-aaral ang nakabanggit na mahilig naman siyang magbasa ngunit ang kaniyang mga binabasa o kinawiwilihang basahin ay mga babasahing elektroniko o e-book na karaniwan ay nakatala sa Ingles.

Ang pagbabasa ng mga babasahing elektroniko ang masasabing isa sa panibagong libangan ng mga kabataan sa makabagong panahon. Mga babasahing madaling mahanap gamit ang internet at iba't ibang mobile application. Mga babasahin na naglalaman ng mga bagong paksa na akma sa mga mambabasa nito na kabilang sa mga tinatawag na Generation Z o Digital Natives.

Sa araw-araw na pakikisalamuha sa aking mag-aaral nakikita ko kung gaano kataas ang kanilang pagpapahalaga sa internet o anomang social media platform sa kanilang mga kilos o gawain. Sa araw-araw ay makikita ang malaking populasyon ng mga kabataang mag-aaral sa mga post sa iba't ibang social media platform. Nagagamit ang mga ito upang maglahad ng kanilang damdamin, mangalap ng impormasyon, at iba pang layunin ngunit paano nga kaya nakatutulong ang mga ito sa pag-aaral ng mga mag-aaral at pagpapalawak ng kanilang kaalaman at karanasan sa iba't ibang makrong kasanayan.

Sa panahon ng makabagong henerasyon na marami nang pinagkakaabalahan ang mga mag-aaral ay patuloy na nilalayan ng mga edukador ang paghahasa sa kasanayan ng mga mag-aaral sa pagbabasa at kanilang komprehensyon na tutugon sa kanilang akademikong pag-unlad tungo sa makabuluhang kalinangan sa tulong ng iba't ibang pamamaraan na angkop sa interes, lebel ng kasanayan at tinatampok ng kanilang kapaligiran. Ang suliranin ay nagiging masalimuot kung bibigyang-pansin natin ang ating teknolohikal na mundo. Ang pagtaas ng teknolohiya ay nangangahulugan ng pangangailangan sa ating mga mag-aaral ng mataas na literasi at kritikal na mga kasanayan sa pagbasa.

1.1 Paglalahad ng Suliranin

Ang pangunahing layunin ng pag-aaral na ito ay matukoy ang kasalukuyang kalagayan sa pagbasa at mga estratehiya ukol dito na naaayon sa mga mag-aaral sa Ikasampung Baitang ng Pamantasan ng Silangan-Kalookan sa loob ng taong panuruan 2019-2020.

Ang sumusunod ay ang mga tiyak suliranin na bibigyang lunas sa pag-aaral na ito:

1. Ano ang kasalukuyang kalagayan ng mga mag-aaral na nasa Ikasampung Baitang sa pagbabasa?
2. Ano ang mga kasanayan at/o estratehiya na ginagamit sa pagbabasa ng mga mag-aaral sa Ikasampung Baitang na naaayon sa ika-21 siglo batay sa mga sumusunod:
 - 2.1. media literacy;
 - 2.2. information literacy; at
 - 2.3. technology o digital literacy?
3. May mahalaga bang kaugnayan ang kasalukuyang hamon ng mga mambabasa sa kasanayan at/o estratehiya sa pagbasa ng mga mag-aaral sa Ikasampung Baitang na nauukol sa ika-21 siglo?

1.2 Saklaw at Limitasyon ng Pag-aaral

Ang pag-aaral ay isasagawa sa ilang piling mga mag-aaral sa Ikasampung Baitang mula sa Pamantasan ng Silangan-Kalookan Kampus Taong Pampanuruan 2019-2020. Ang kabuuang bilang ay 380 ng mga mag-aaral na mula sa iba't ibang pangkat. Ang mananaliksik ay kumuha lamang ng limampung (50) respondente na gagamitin para sa aksyon riserts patungkol lamang sa inobasyon sa pagbasa ng mga mag-aaral.

2. Metodolohiya

2.1 Disenyo ng Pananaliksik

Ang pag-aaral na ito ay gumamit ng palarawang pananaliksik (descriptive method) sa tulong ng mga kasangkapan at kaparaanang pang-istadistika, gaya ng frequency, weighted mean, three-point rating scale ng Likert Type-Style Method at Pearson's r. Ang pananaliksik na palarawan ay tumutuklas sa mga inobasyon sa pagbasa na tutugon sa pangangailangan ng ika-21 siglong mga mag-aaral tungo sa pagpapaunlad ng kanilang kasanayan sa pagbasa.

Sa pag-aaral na ito, tinuklas ng mananaliksik ang mga gawain at estratehiyang makatutulong upang mahasa ang kasanayang sa pagbasa ng mga mag-aaral sa Ikasampung Baitang.

2.2 Pamaraan ng Pagpili ng Respondente

Upang maging makabuluhan ang pag-aaral na ito, isasagawa ng mananaliksik sa pamamagitan ng mga datos na magmumula sa mga mag-aaral sa Ikasampung Baitang ng Pamantasan ng Silangan-Kalookan Kampus. Kung saan ang kabuuang populasyon ng mga mag-aaral sa baitang na nabanggit ay 380. Dalawampu (20) sa mga ito ay mag-aaral sa pangkat na nasa ilalim ng Science-Based Curriculum (SBC) at ang siyam (9) na pangkat ay heterogenous. Walong (8) mag-aaral sa bawat pangkat ang pipiliin sa paraang random sampling; apat (4) na lalaki at apat (4) na babae ang gagawan ng pag-aaral na bubuo sa kabuuang limampung (50) pagmumulan ng mga datos. Ito ay isinagawa noong Oktubre 14 taong panuruan 2019-2020 sa bawat oras ng klase sa Filipino na tumagal lamang ng 10 minuto.

2.3 Instrumento ng Pananaliksik

Ang pag-aaral ay isinagawa sa pamamagitan ng talatanungan na sumailalim sa balidasyon ni Dr. Emmanuel Gonzales, propesor sa Far Eastern University.

Gumamit ang mananaliksik ng talatanungan na may dalawang set. Binuo ng mananaliksik ang talatanungan na naaayon sa suliranin ng pag-aaral. Unang set (I) ay tungkol sa mga kasalukuyang hamon sa mga mambabasa ng ika-21 siglong mag-aaral at ang ikalawang set (II) naman ay mga kasanayan at estratehiya na ginagamit sa pagbabasa ng mga mag-aaral ng ika-21 siglo.

Ang unang set ay naglalaman ng tala ng mga posibleng nagiging hamon o hadlang sa mga mag-aaral sa gawaing pagbabasa, ang sampung nakatala sa set na ito ay naaayon sa obserbasyon ng guro sa loob ng silid-aralan at karaniwang tugon ng mga mag-aaral at ang ikalawang set naman ay naglalaman ng tala ng mga kasanayan at estratehiyang ginagamit ng mga mag-aaral ng ika-21 sa pagbabasa ay buhat sa Learning Competencies ng Media and Information Literacy tugon sa kurikulum ng K-12 na nahahati sa tatlong (3) kategorya; una ang media literacy, ikalawa ang information literacy, at ikatlo ang technology/digital literacy.

2.4 Pamamaraan sa Pagkalap ng Datos

Ang mananaliksik ay humingi ng pahintulot sa Punongguro, Gurong Tagagabay ng mga mag-aaral upang maisagawa ang proseso.

Matapos matamo ang pahintulot ng punongguro ay personal isasagawa ng mananaliksik ang pamamahagi at pagpapasagot ng talatanungan sa loob ng silid-aralan ng bawat pangkat at nilikom ang resulta pagkatapos.

Personal na pinili ng mananaliksik ang apat (4) na pangkat ng mga mag-aaral sa Ikasampung Baitang na bubuo sa limampung (50) respondente na kakailangan at hindi na isinama pa ang ibang mag-aaral mula sa lima (5) pang pangkat sa baitang sampu.

2.5 Istatistikal na Pagsusuri ng Datos

Upang makuha ang mapapanaligang resulta ng mga inilahad na datos sa pag-aaral na sinagawa, narito ang sumusunod na paraang istatistikal na ginamit sa pagsusuri.

Three-Point rating Scale o Likert Style Method. Ginamit ito ng mananaliksik upang malaman kung ano ang mga kasalukuyang kinahaharap na hamon sa mga mambabasa ng ika-21 mag-aaral at mga kasanayan at estratehiya na ginagamit nila sa pagbabasa.

Frequency. Upang malaman ang kadalasan ng sagot ng mga respondente.

Weighted Mean. Upang makuha ang 'average calculated value' ng mga naging kasagutan sa talahanayan, set I at set II.

Correlation of Coefficient or Pearson's r. Upang makita kung may korelasyon ang mga nakuhang datos sa set I at set II.

3. Pagtalakay sa Resulta ng Pananaliksik

Ang mga datos ay nilikom mula sa mga kasagutang nakuha sa mga respondente na ang pinagbatayang pinagkunan ay ang mga suliranin ng pag-aaral na ito.

3.1 Ano ang kasalukuyang kalagayan ng mga mag-aaral na nasa sa Ikasampung Baitang sa pagbabasa?

Ipinapakita sa talahanayan 1 ang kasalukuyang kalagayan ng mga mambabasa base sa antas ng pagtingin nila sa mga hamon bilang mag-aaral ng ika-21 siglo at ang may pinakamaraming nakuhang tugon na lubos na sumasang-ayon ay ang paggamit ng social media platforms sapagkat ito ay pinatunayan sa pag-aaral nina Young Cho at Afflerbach na ang mga mambabasa ngayon ay bahagi na ng tinatawag na 'internet-based information society' kung saan nakasasabay sa mga hamon ng mga mag-aaral ang paggamit ng iba't ibang 'social media platforms' sa kanilang pagbabasa. Samantalang ang problemang personal at pampamilya ang nakapagtala ng pinakahuling rango sa talahanayan bagaman huli ay nakaaapekto pa rin sa pagbabasa ng mga mag-aaral sapagkat sinabi ni Badayos na ang salik na emosyonal at sosyal ay bahagi na kailangan sa kahandaan sa pagbasa.

Talahanayan 1

I. Ang kasalukuyang hamon sa mga mambabasa ng ika-21 siglong mag-aaral .	LS	SA	HLS	N	Weighted	Interpretation	Rank
	3	2	1		Mean		
1. Ang panonood ng telebisyon.	13	30	7	50	2.12	SA	8
2. Ang kakulangan ng oras sa pagbabasa.	23	19	8	50	2.30	SA	7
3. Ang problemang personal/ pampamilya.	15	23	12	50	2.06	SA	9
4. Ang ugali sa pagbabasa (<i>reading habit</i>).	25	22	3	50	2.44	LS	3.5
5. Ang pagkawili sa paglalaro ng <i>mobile games</i> .	29	16	5	50	2.48	LS	2
6. Ang paggamit ng <i>social media platforms</i> . (hal. <i>facebook, twitter, youtube</i>)	33	15	2	50	2.62	LS	1
7. Ang kakulangan ng interes sa binabasang akda.	24	19	7	50	2.34	LS	5.5
8. Ang mga babasahing nasa anyong <i>animation</i> o palabas.	17	33		50	2.34	LS	5.5
9. Ang mga salita o matatalinghagang salitang ginamit ng awtor.	22	28		50	2.44	LS	3.5
10. Maaaring dahil sa iba pang mga gawain na nakakahadlang upang magbasa sa araw-araw tulad ng:							

Ang resulta ay nagpapatunay na marami sa mga respondenteng mag-aaral ng ika-21 siglo na kinakaharap ang sumusunod na mga hamon sa mga mambabasa ; nangunguna sa listahan ang paggamit ng social media platforms at mga babasahing nasa anyong animation o palabas na parehong may tatlumpu at tatlo (33) o 66%, ikalawa ang panonood ng telebisyon na sumasang-ayon ay tatlumpu (30) o 60%, ikatlo ang pagkawili sa paglalaro ng mobile games na lubos na sumasang-ayon na may dalawampu at siyam (29) o 58% , ikaapat ang ugali sa pagbabasa (reading habit) at matatalinghagang salitang ginamit ng awtor na lubos na sinang-ayunan ang una at sinang-ayunan ang ikalawa na may dalawampu at lima (25) o 50%, ikalima ang kakulangan ng interes sa binabasang akda na lubos na sinang-ayunan na may dalawampu at apat (24) o 48%, ikaamin ang kakulangan sa oras sa pagbabasa at ang problemang personal/pampamilya ay parehong may dalawampu at tatlo (23) o 40%. Ang resulta ng unang set ng mga tanong ukol sa mga hamon ng mga mambabasa ng ika-21 siglong mag-aaral ay halos hindi nagkakalayo-layo ang resulta ng mga datos na karamihan ng mga tugon ay lubos na sumasang-ayon. Lumabas din ang iba pang gawaing nakakahadlang sa mga mag-aaral upang magbasa sa araw-araw na may

pinakamaraming tala ang kakulangan sa oras dahil may mga gawain pa sa bahay na may siyam (9) na nagtala, ang sumusunod ang iba pang nabanggit:

4. paggamit ng selpon, paglalaro ng mobile games/online games (6)
5. maraming ginagawa (5)
6. mga iba pang gawain para sa paaralan (4)
7. pag-una sa gala (3)
8. katamaran (3)
9. utos ng magulang (2)
10. kakulangan ng pera para makabili ng mga libro
11. kakulangan ng pag-eendorso sa mga libro
12. impluwensya ng ibang tao
13. panonood ng movie
14. pag-aaral

3.2 Ano ang mga kasanayan at/o estratehiya na ginagamit sa pagbabasa ng mga mag-aaral sa Ikasampung Baitang na naayon sa ika-21 siglo batay sa mga sumusunod: media literacy, information literacy at technology o digital literacy?

Sa bahagi ng media literacy ang panonood ng animation na nanguna sa talahayan ay isang patunay sa tinukoy ni Balaba sa kaniyang pag-aaral. Ang paggamit ng mga ganitong uri ng multimedia ay nakakatulong sa pagpapataas ng interes ng mga mag-aaral. Habang sa information literacy naman ang pagbabasa ng mga 'blog' na may kaugnayan sa edukasyon, ekonomiya o anomang isyung panlipunan ang nasa unang rango at ang pagbabasa ng mga napapanahon o trending issue sa 'social media' sa technology o digital literacy. Ang mga resultang ito ay sumususog sa sinabi muli nina Young Cho at Afflerbach sa pakikibahagi ng mga mag-aaral sa tinatawag na 'internet-based information society' at masasabing kung bakit ang mga mag-aaral ay nawiwili sa sa mga napapanahong isyu ay dahil nakauugnay sila rito, hindi marahil ukol lagi sa nilalaman nito kung hindi dahil sa wika nito na angkop sa kanilang lebel at panahon.

Talahanayan 2

Sa talahanayan na ito patungkol sa mga kasanayan at estratehiya na ginagamit sa pagbabasa ng mga mag-aaral ng ika-21 siglo ay hinati sa tatlong bahagi: media literacy, information literacy at technology/digital literacy upang makita ang gamit ng iba't ibang makabagong pamamaraan bilang kasanayan at/o estatehiya sa pagkatuto.

Ang resulta ay nagpapatunay na ang mga nakatala ay nagagamit ng mga respondente sa kanila proseso ng pag-aaral at pagkatuto hindi nga lang para sa isang tiyak na asignatura. Lumabas sa resulta na ang panonood ng 'animation' na may parehong paksa o aralin na may pinakamalaking bilang na tatlumpu at pito (37) o 74% , ikalawa ang panonood ng mga pelikula at pagbabasa ng mga napapanahon o trending issue sa 'social media' na may tatlumpu (30) o 60%, ikatlo naman ang panonood ng 'spoken word poetry' o 'rap battle' sa youtube na parehong may dalawampu at walo (28) o 56%, ikaapat naman,ang paggamit ng 'e-book' na may dalawampu at pito (27) o 54% ang sumang-ayon, ikalima ang pakikinig ng musika habang nagbabasa at ang pagsasanay sa videoke o anumang uri ng 'social media platform' na dalawampu at anim (26) o 52% ang sumang-ayon, ikaanim ang paggamit

ng diksyunaryo habang nagbabasa at pagbabasa ng mga 'blog' na may kaugnayan sa edukasyon, ekonomiya o anomang isyung panlipunan na parehong lubos na sinang-ayunan ng dalawampu at lima (25) o 50% ng mga respondente habang ang pagpopost sa anumang 'social media platforms' ay lubos na sinang-ayunan at sinang-ayunan ng parehong dami ng mga mag-aaral na may dalawampu at lima (25) respondent, sunod ang pagsasanay ng 'tongue twister' na may dalawampu at apat (24) o 48% at huli ang pagsali sa patimpalak patungkol sa pagbasa na may dalawampu at tatlo (23) o 46%.

3.3 May mahalaga bang kaugnayan ng kasalukuyang hamon ng mga mambabasa sa kasanayan at/o estratehiya ng mga mag-aaral sa Ikasampung Baitang na nauukol sa ika-21 siglo?

Ipinapakita sa talahanayan 3 ang interpretasyon ng resulta ng set I at set II at lumabas na 'high correlation' ang mga ito. May malaking kaugnayan ang kasalukuyang hamon ng mga mambabasa sa kasanayan at/o estratehiya sa pagbasa ng mga mag-aaral ng ika-21 siglo. Ang kalagayan ng mga mag-aaral sa Ikasampung Baitang sa pagbabasa ay nagpapakita lamang na kanilang mga hamon na kinahaharap sa kasalukuyan ay matutugunan ng mga kasanayan at/o estratehiya na nauukol sa kanila bilang mga ika-21 mag-aaral.

Talahanayan 3

I(x)	II(y)	Xy	x ²	y ²
2.12	2.60	5.51	4.49	6.76
2.30	2.54	5.84	5.29	6.45
2.06	2.70	5.56	4.24	7.29
2.44	1.92	4.68	5.95	3.69
2.48	2.08	5.16	6.15	4.33
2.66	2.26	6.01	7.08	5.11
2.34	2.40	5.62	5.48	5.76
2.34	2.44	5.71	5.48	5.95
2.44	2.53	6.17	5.95	6.40
21.18	21.47	50.26	50.11	51.74
448.59	460.96			
	-2.3946			
	450.99	448.59	465.66	460.96
	2.40		4.70	
	11.26656			
	3.35657			

-0.71341	
-0.71	>r value
df = 7	
interpretation = high correlation	

11.26656		
3.35657		
-0.71341		
-0.71	>r value	
df = 7		
interpretation = high correlation		

4. Konklusyon ng Pananaliksik

Batay sa mga inilahad na resulta ng pag-aaral na ito, narito ang kabuuang konklusyon:

15. Ang mga mag-aaral sa Ikasampung Baitang ng Pamantasan ng Silangan-Kalookan ay may mataas na bilang na nagsasabing hamon sa kanilang mga mambabasa ang paggamit ng iba't ibang 'social media platforms'.
16. Ang mga mag-aaral sa Ikasampung Baitang ng ay nagpapakita ng lubos na pagsang-ayon at malaking porsyento sa paggamit ng iba't ibang 'social media platforms' tulad sa multimedia literacy ang panonood ng 'animation', sa information literacy naman ang pagbabasa ng mga 'blog' at sa technology literacy ay ang pagbabasa ng mga napapanahon o 'trending issues' sa 'social media' .
17. May malaking kaugnayan ang hamon sa mga mambabasa ng ika-21 siglong mag-aaral sa mga kasanayan at/o estratehiya na ginagamit sa pagbabasa ng mga ito sa kasalukuyan. Ang ganitong pamamaraan ay isang pagharap at pagtugon sa pangangailangan ng mga mag-aaral, isang inobatibong pamamaraan upang makamit ang kanilang kasanayan sa pagbasa. Sa ganitong pamamaraan ang mga layunin ng mga guro sa kanilang aralin ay hindi maisasantabi kasabay ng pagkatuto ng mga mag-aaral at paghahanda ng kanilang kasanayan sa mas mataas na antas.

5. Mga Rekomendasyon

Batay sa mga resulta at konklusyon sa pag-aaral na ito, iminumungkahi ng mananaliksik ang mga sumusunod:

1. Upang mapahusay ang paggamit ng iba't ibang 'social media platform' iminumungkahi ng mananaliksik sa Sangay ng Edukasyon, Mga Guro at mag-aaral ay maaaring bumuo ng isang patnubay sa matalino at makabuluhang paggamit nito. Gayundin sa mananaliksik ng Kagawan ng Edukasyon na bigyang-pansin ang telebisyon bilang midyum o daan sa mga mag-aaral bilang tugon sa hamon sa mga mambabasa ng ika-21 siglo.
2. Upang makasabay sa pagbabago ang mga mag-aaral sa hamon ng pagtuturo ng ika-21 siglo sa kasanayan sa pagbasa ay maaaring gawin ang kaugnay na pagsubok (testing) sa gamit ng iba't ibang 'social media platform' bilang kasangkapan sa kanilang pagkatuto. Iminumungkahi sa Kaguruan ang pagharap sa mga hamon ng ika-21 pagtuturo. Pagsusuri sa mga uri ng babasahing nakapaloob sa mga aklat ng mga mag-aaral kung ang mga ito ba ay naaayon pa sa edad, panahon, antas ng kaalaman at interes ng mga mag-aaral ng ika-21 siglo. Upang mapahusay ang mga pagbabago sa pag-atake sa pagtuturo ng pagbasa at paghasa sa kasanayan na ito, mainam kung mabatid ng mga administrasyon ng paraalan, kaguruan at mga magulang kung paano ang interes ng mga mag-aaral ng ika-21 siglo ay magamit sa isang kapakipakinabang na gawain at antas ng pagkatuto. Mainam na alamin ang antas ng kasanayan ng mga mag-aaral sa pagbasa at komprehensyon sa pamamagitan ng iba't ibang gawain na susubok sa kanilang interes o aayon sa kanilang kinawiwilihan at paglakip sa mga aralin tulad ng digital animation.
3. Gayundin ay iminumungkahi ng mananaliksik na maaari pang magsagawa ng kaugnay na pag-aaral hinggil sa paksang ito na nagpapakita ng mahalagang kaugnayan sa mga kasanayan at/o estratehiya na maaaring magamit sa pagbabasa na tutugon sa hamon ng pangangailangan ng mga mag-aaral ng ika-21 na siglo na tinatawag na Digital Natives. Narito ang ilang programang interbensyon na nilikha ng mananaliksik para sa pagtugon sa hamon ng ika-21 na siglo na mga mag-aaral.

Programang Interbensyon

Estratehiya	Interbensyon	Kinalabasan
1. Reading Logs Strategy	1. Panoorin ang short video ni Raymond Lopez patungkol sa "Paano Kumakalat ang COVID-19" http://www.facebook.com/TanayKamiHane/videos/1448044258706769/ at gawin ang Reading Logs Strategy gamit ang sumusunod na mga hakbang: 1. Paggawa ng booklet; 2. Pagkatapos ng panonood at pagbabasa, magsulat ng pamagat sa unang pahina sa booklet. Maaari ring	Matuto ang mga mag-aaral na magtala ng mga mahahalagang detalye sa kanilang binasa at makasulat nang mahusay na reaksyon na nauukol dito.

	<p>isulat ang pangalan ng awtor o ilang pang paunang detalye;</p> <p>3. Magsulat ng reaksyon o repleksyon mula sa binasa. Maaaring iugnay ito sa kaniyang buhay o kaya sa iba ng literatura sa kaniyang nabasa. Maaaring magtala ng mga salitang hindi pamilyar, mga mahalagang kaisipan o kaya naman ay ukol sa mga tauhan, banghay o iba pang elemento ng kuwento o anomang patungkol sa nabasa. Tandaan na ang pangunahing layunin ng reading logs ay isipin ang tungkol sa binasa at iugnay ito sa buhay at idebelop ang pag-unawa sa kuwento.</p>	
<p>2. Problematic Situation</p> <p>Strategy</p>	<p>Paano ka makakatulong sa pagpapahupa o pagpapatigil ng sakit/pandemya sa ating bansa?</p> <p>Basahin ang trending issue ngayon maging sa social media patungkol sa COVID-19 at gawin ang gawain ayon sa sumusunod na mga hakbang:</p> <ol style="list-style-type: none"> 1. Tukuyin ang pangunahing kaisipan sa binasa batay sa mga posibleng mga solusyon na nakatala: <ol style="list-style-type: none"> a. manatili sa bahay b. palakasin ang resistensya c. umiwas sa matataong lugar d. sumunod sa ordinansa ng barangay O ng lungsod <ol style="list-style-type: none"> e. komunsulta agd sa doktor kung may nararamdamang sintomas 2. Tukuyin pinakamagandang solusyon sa problema. (Kinakailangang magbigay ng sariling pagpapatotoo o justification ang mag-aaral sa solusyon na kaniyang pinili). 3. Pagbasa ng mag-aaral sa kabuuan ng teksto upang dagdagan o i-modify ang mga solusyon na iminungkahi habang nadaragdagan ang mga impormasyong nababasa. 	<p>Matuto ang mga mag-aaral sa pagtukoy sa isang mainam na solusyon sa isang problema. Makita ang kanilang malalim na pagkilala sa isang problema at mabuting solusyon.</p>

	<p>4. Paghahambing ng mag-aaral sa kaniyang iminungkahi at napiling solusyon sa teksto at pagbasa muli sa problemadong sitwasyon para sa isasagawang rebisyon, anomang karagdagan o kaya komento.</p>	
<p>3. Student Team Reading</p>	<p>Ipangkat ang mga mag-aaral na may apat hanggang limang miyembro na makakatuwang ang isa't isa sa pagbabasa.</p> <p>Sa pamamagitan ng Student Team Reading ang mga mag-aaral ay magsasagawa ng sama-sama, sabay-sabay at tulong-tulong na pagbasa at pag-unawa sa kanilang binabasa. Maaari silang magtanungan sa kanilang pangkat sa mga salita at nilalaman na hindi nila nauunawaan.</p> <p>Makakatulong din sa gawain na ito ang magbibigay ng gabay na mga tanong na manggagaling sa guro upang magkaroon sila ng direksyon sa kanilang pag-uusapan, pagdidiskusyon, pagbabahagingan o pagtatalunan sa pangkat.</p> <p>Sa huli ng gawain na ito, mahalaga ang pagbuo ng isang mabuting lagom sa kanilang mga napag-usapan sa loob ng pangkat.</p>	<p>Matuto ang mga Mag-aaral ng pakikipagtulungan at pagtulong sa kanilang kamag-aral sa paraang naayon sa lebel ng kanilang kakayahan. Mas mababatid nila ng mainam at mabilis kung paanong pag-atake sa pagbasa ang kanilang dapat gawin upang maunawaan at/o paunawa sa kanilang kapangkat ang nilalaman ng kanilang babasahin.</p>
<p>4. Peer Reading</p>	<p>Gamit ang isang peer reading monitoring sheet itatala ng magkapareha ang oras ng pagsisimula at pagtatapos ng kanilang pagbasa. Sa talaang din ito itatala nila nang magkatuwang ang mga salitang bago sa kanila at kanilang aalamin ang kahulugan o gamit ng mga salita sa tekstong kanilang binasa.</p> <p>Kung ang resulta ng peer reading monitoring sheet ay hindi natatamo ang label ng kasanayan, ang guro ay magpapasya ng panibago nilang makakapareha na may mas mataas na lebel sa kanila upang sila ay matulungan din nito.</p>	<p>Nais matamo ng estratehiya na ito ang pagtutulongan sa mga mag-aaral sa mas maliit na bilang at pagpapabilis ng pagmomonitor sa kanilang kakayahan sa pagbasa at mapataas ito sa tulong ng kanilang kamag-aral.</p>

Reason to Read	<p>Bigyan ng dahilan ang mga mag-aaral upang magbasa gamit ang sumusunod na hakbang:</p> <ol style="list-style-type: none"> 1. Pagtatala ng mga mag-aaral ng mga paksa na kanilang interes o pinagtutuunan ng panahon. 2. Buhat sa mga tinala ng mag-aaral, ang guro ay magbibigay ng mga babasahin na may kaugnayan sa paksa na kanilang natala. 3. Ang mga mag-aaral ay magtatala ng ilang mahalagang detalye buhat sa kanilang akda babasahin upang magamit ng mga ito sa isang maigsi pagbabahagingan ng kanilang nabasa sa klase. Ang mga detalye na dapat itala ay ang sumusunod: <ol style="list-style-type: none"> a. pamagat b. awtor at kaunting pagpapakilala rito c. tagpuan o setting d. mahahalagang pangyayari e. mahalagang kaisipan 	<p>Nais nito na marinig sa mga mag-aaral ang mga paksa ng mga babasahin na kanilang kinawiwilihan mga babasahin na akma sa kanilang interes, edad at panahon. Sa ganitong paraan madali nilang maunawaan ang nilalaman ng kanilang binabasa.</p>
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Hear Me Out: The Use of Critiquing as an Approach in Enhancing Creative Writing Skills of Grade 12 HUMSS Students

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Abstract: The study investigated the effects of critiquing as a teaching approach in enhancing creative writing skills of Grade 12 students under Humanities and Social Sciences Strand. The study utilized both qualitative and quantitative research designs. The respondents of the study consisted of 47 HUMSS students who took Creative Writing as one of their specialized subjects during the first semester of the Academic Year 2019-2020. Critiquing was conducted in 10 sessions. Creative writing skills manifested by the students were identified on their pre and post written assessments. Points were given on their assessments based on the criteria provided. T-test of Independent Sample Assuming Equal Variances was performed to determine if there was a significant difference between the assessment results. Results revealed that prior to the integration of critiquing sessions students manifested some creative writing skills, they can: express creative imagination; comply with the basic grammar rules; convince the readers; influence the readers; and observe uniqueness in writing style. Surprisingly, after the integration of critiquing session, additional creative skills were displayed by the students, they have: acquired good sense of imagery and used poetic styles. It was further revealed that scores of the respondents had increased after the integration of critiquing.

Keywords: critiquing, creative writing skills, teaching approach, Grade 12 HUMSS Students

1. Introduction

In our current education system, traditional teaching approaches are no longer applicable, teachers must thought of new methods that can be used to ensure that target learning objectives will be achieved, utilizing a more personal approach is necessary to end up with positive results, giving students an opportunity to learn in a completely different way can be put into consideration, thus, allowing students to collaborate and freely express their personal evaluation can help develop the target skills.

This study focused on one of the approaches that is considered more personal in nature, the critiquing approach (Burnell et al, 2019). It was found effective in technical writing (Jensen and Fischer, 2005). That is why, the researchers decided to find out if it can also be used effectively in creative writing.

Critiquing is one of the approaches that can be used in teaching students, it is a good way to develop their technical skills in a sense that it allows them to provide their knowledge, perception, opinion, and evaluation towards the subject to be critiqued on. Critiquing gives an avenue to every student to voice out their criticism, the idea of having

them collaborate with their co-learners can help them deepen their argument towards the topic, at the same time, make them realize the validity of the argument that they have presented (Glover, 2014).

Moreover, critiquing can help students enhance their creativity. Glover (2014) states that by establishing the concept of going outside the box as they provide their critique can spark the creative minds of the students. In creative writing, for instance, students can play around with the styles; they can also incorporate their deep sense of imagery to ensure that creativity of the work will be ascertained.

On the other hand, critiquing can be difficult among the students. Brown (2014) claims that if the students are not familiar with the process it would be hard to utilize the approach, teacher must provide the detailed steps on how it should be done. She further states that students who are involved in the approach cannot freely express their criticisms for the reason of not hurting others feelings and emotions. It limits the argument of the students because of the consequence of "what if", what if the time has come that their work will be critiqued, because of that idea some students do not discuss their criticism rather they just provide the positive points of the work which affect the target goals of the approach.

Nevertheless, critiquing is an approach that can help students develop essential skills specifically in writing. Glover (2014) concludes that through critiquing, students became aware of the errors that they have committed in writing, their knowledge with regard to the usage of subject-verb agreement sharpened, they also became aware of the different styles in writing which is essential in creative writing.

2. Literature Review

In order to achieve the target learning goal, teachers should not be afraid to explore and try other teaching approaches. Having this kind of mindset is inevitable in dealing with 21st Century Learners. Trying something different is not bad at all especially if curiosity dictates that it would be beneficial among learners.

Critiquing is an ability to examine something critically which can be applied in different areas (Pawliczak, 2015). In writing it can be considered as an approach to be used when going beyond the details of the written composition to identify certain points that can be improved (Glover, 2014).

Critiquing someone's written composition is a good way to improve his writing skills, letting others present their ideas and opinions towards someone's written piece is an avenue to realize the things that can be done better, the next time was tasked to write one (Ketts, 2017).

Donovan (2018) states that critiquing can go beyond feedback; sharing different insights with others helps broaden one's knowledge about something. Accepting and giving personal point of view lead up to collaboration which is an effective way to develop the skills necessary to become creative writers.

Critiquing develops creative writing skills of the students. Stukenberg (2016) states that because of critiquing, writer builds awareness as to how others understand their work, through the feedback given by others they tend to realize the points of improvement

that can possibly be done in their work in terms of writing styles and creative ways of presenting their ideas.

In addition, critiquing is a way to enhance creative writing abilities. Giving an opportunity to others to share their technical background in writing is a great opportunity to become aware about the creative practices in writing. Hence, content and creativity will always be observed (Jae, 2013).

Developing creative writing skills is crucial because there are many things that must be considered, it involves talent, persistence, patience, ability to face criticism, imagination, and technical ability (Patel, 2012), such skills can be developed using the approach like critiquing which is more personalized in nature (Burnell, et. al, 2019).

3. Research Questions

This study dealt with the effects of critiquing as a teaching approach in enhancing creative writing skills of Grade 12 HUMSS students of E. Rodriguez Jr. High School. Specifically, it sought to answer the following questions:

1. What are the creative writing skills manifested by the students prior to the integration of critiquing approach?
2. What are the creative writing skills manifested by the students after the integration of critiquing approach?
3. Is there a significant difference between the creative writing skills manifested by the students prior and after the integration of critiquing approach?

4. Scope and Limitation

The study focused on effects of critiquing as a teaching approach in enhancing creative writing skills of grade 12 students under Humanities and Social Science Strand. The results of the pre and post written assessments and interview were compared and analyzed to acquire the needed data.

5. Methods

5.1 Sampling

The respondents of the study consisted of 47 Grade 12 students under Humanities and Social Sciences Strand of E. Rodriguez Jr. High School and who have taken Creative Writing as one of their specialized subjects during the First Semester of the Academic Year 2019-2020.

5.2 Data Collection

Four instruments were used in the study to acquire the needed data: the pre written assessment; post written assessment; critiquing sessions; and interview.

5.3 Pre-Written Assessment

Prior to the integration of critiquing approach, the respondents of the study were asked to write a 250-word creative essay about a particular topic. The essays were checked by the English teachers following the rubrics to consider when checking a creative essay.

Each essay of the respondent was given corresponding points depending on the criteria they met.

After which, the teachers carefully identified the creative writing skills manifested by the respondents. To ensure that English teachers were guided regarding the creative writing skills, they were provided a list of skills; thus, they underwent thorough discussions of such skills with the researchers.

5.4 Critiquing Approach

The critiquing was performed after the pre-written assessment. Total of 10 sessions were allotted to cover the steps and techniques in writing different types of creative writing such as Journal, Diary, Memoir, Essay, Poem, Song Lyrics, Speech, Script, and Vignette.

The critiquing had three phases: the Lecture-Discussion; the Write Shop; and the Critiquing Session.

5.4.1 First Phase: The Lecture-Discussion

In a collaborative manner, the teacher and students discussed the content, tips and techniques in writing each type of creative writing. During the lecture-discussion, students asked questions and raised clarifications and concerns regarding the topic.

5.4.2 Second Phase: The Write Shop

After the lecture-discussion phase, the students were asked to write the type of creative writing covered. A minimum requirement of 250 words was asked for their composition. Students were also instructed to observe the things discussed.

Before the end of the write shop, the teacher picked the name of the students whose work was to be critiqued.

5.4.3 Third Phase: Critiquing Session

The students were provided a copy of the student's work to be critiqued. A total of 1 hour was allotted for the critiquing session. Students were given 30 minutes to read and write their critique on their classmate's work. 20 minutes was allotted for the students to provide their critique. Then, the remaining 10 minutes was utilized by the teacher to summarize the students' critique and give personal critique towards the student's work. The teacher upon summarizing students critique agreed or disagreed with the critique provided by the students. The focus on the students critique was clarity, content, and creativity.

5.5 Post-Written Assessment

After the integration of the critiquing sessions, the respondents of the study were asked to write a 250-word creative essay about a particular topic. The essays were checked by the English teachers following the rubrics to consider when checking a creative essay.

Each essay of the respondent was given corresponding points depending on the criteria they met. After which, the teacher carefully identified the creative writing skills manifested by the respondents.

The results of the pre and post writing activity were compared and analyzed to determine the effects of critiquing session.

5.6 Interview

The researchers after acquiring the needed data from the Post-Written Assessment conducted an interview among the respondents to further validate the results.

5.7 Data Analysis

After getting the scores of the respondents from the pre and post writing activity, t-test of Two-Sample Assuming Equal Variances was used to determine the effects of critiquing sessions in enhancing creative writing skills of Grade 12 HUMSS students.

6. Results and Discussion

Table1. Creative Writing Skills Manifested by the Students Prior to the Integration of Critiquing Sessions

Creative Writing Skills	Percentage
Present creative imagination	45%
Comply with the basic grammar rules	67%
Convince the readers	38%
Influence the readers	29%
Showcase good sense of imagery	0%
Make use of poetic styles	0%
Observe uniqueness in writing style	30%

Based on the result of the pre-writing assessment, it was found that 67% of the respondents can comply with the basic grammar rules. This means that they were able to observe correct sentence structure, use parts of speech properly and observe proper punctuation marks in their written assessment.

Consecutively, 45% of the respondents showcase creative imagination, 38% can effectively convince the readers, 30% can observe uniqueness in writing style, and 29% can influence the readers with their creative essay.

On the other hand, none of the respondents manifested a good sense of imagery and variation in the use of poetic styles in their written assessment. These findings call for the teachers' intervention by integrating a more personal approach to improve the essential writing skills (Glover, 2014).

Table2. Creative Writing Skills Manifested by the Students After to the Integration of Critiquing Sessions

Creative Writing Skills	Percentage
Present creative imagination	76%

Comply with the basic grammar rules	90%
Convince the readers	83%
Influence the readers	80%
Showcase good sense of imagery	71%
Make use of poetic styles	76%
Observe uniqueness in writing style	81%

Based on the result of the post-writing assessment, it was revealed that respondents were able to manifest two additional creative writing skills after the integration of the critiquing. It was identified that 71% of the respondents had shown good sense of imagery and 76% of the respondents made use of poetic styles in their creative essay.

Moreover, it can be noticed that after the integration of the critiquing session, the number of respondents who manifested creative writing skills had increased. It can be noted that 90% of the respondents complied with the grammar rules, 83% effectively convinced the readers, 81% observed uniqueness in writing style, 80% influenced the readers effectively, and 76% incorporated their creative imagination towards their creative essay.

After the analysis of data, it can be drawn that critiquing session as approach can be used to develop the creative writing skills of the respondents. Thus, utilizing an approach that is more personal can enhance students' creative writing skills (Jae, 2014).

Table3. Significant Difference between the Creative Writing Skills Manifested by the Students Prior and After the Integration of Critiquing Sessions

Assessment	Mean Scores	Standard Deviation	t-value	p-value (Two-tailed)
Pre-Assessment	11.91489362	3.92	35.93818972	6.05209E-56
Post- Assessment	38.72340426	3.28		

Based on the mean scores of the group in their written assessment, it was found that the group acquired a mean score of 11.91 with standard deviation of 3.92 in their pre- written assessment and 38.72 with standard deviation of 3.28 in their post- written assessment. Using t- test of independent samples assuming equal variances, it was revealed that there is a significant difference between the mean scores of the two groups having acquired a t-value of 35.94 p-value of 6.05.

It was further identified that the group had increased their scores after the integration of critiquing session, which implies that critiquing as an approach is effective in enhancing creative writing skills of the students. Thus, utilizing a more personal approach is effective in developing student's creativity (Glover, 2014).

7. Conclusion

Based on the findings of the study, the following conclusions were drawn.

1. Critiquing as an approach in enhancing creative writing skills of the students is effective, allowing them to express their personal evaluation towards someone's work

serves as an avenue to help others widen their knowledge about the things to consider in order to be creative in writing.

2. Integrating critiquing approach in teaching creative writing is a great avenue to help students realize not only their mistakes and wrong practices in writing but also the tips and techniques on how they can become creative writers.
3. Critiquing is an approach that can be used effectively in teaching creative writing as it helps the students to be familiar with the creative writing skills that should be developed. The idea of giving students an opportunity to collaborate and express their critique constructively is one the best ways to ensure that target goals will be achieved.

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Role of Parents in Facilitating Reading Activities at Home

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Abstract. Reading is said to be one of the fundamental skills each learner should master and be competent with. The Department of Education has implemented programs to address the problem of the learners' poor reading performance. One of the programs being implemented is the DO 45, S. 2002 – Reading Literacy Program in the Elementary Schools which has the primary goal of enforcing the policy “Every Child a Reader.” In line with the K to 12 Program, the Department is strengthening its reading program through the implementation of the Early Language, Literacy, and Numeracy, and other initiatives to address the reading difficulties of the learners. In Grade VI Level, particularly in the Grade Six A Class, several learners were identified as readers under frustration level. It was found out that the problems in reading were not only the difficulty to comprehend text, vocabulary, pronunciation but also on the lack of interest in the culture of reading. This pandemic has not thwarted the teacher-researcher in providing a material to ensure the continued provision of learning opportunities to the learners. This study is entitled: **Role of Parents in Facilitating Reading Activities at Home** used the intervention - PAGBIRA-H (Parents and Guardians Bringing Interactive Reading Activities at Home): A Supplemental Reading Booklet to Increase the Reading Performance among Grade VI – A Learners in West City Central School. The aim of this study is to increase the reading performance among Grade Six - A Learners. Home became the avenue for the reading activities and the parents, guardians and other MKOs (More Knowledgeable Other) played as facilitators at home. This research used the qualitative and quantitative methods to analyze data. After the conduct of the reading activities, from 19 or 55. 88%, it increased to 28 or 82.35% of the class were no longer under the frustration level.

Key words: reading performance, reading booklet, parent's role in learning process.

I. Introduction

Reading is said to be one of the fundamental skills each learner should master and be competent with. Dr. Seuss once said, “The more that you read, the more things you'll know. The more that you learn, the more places you'll go.”

In the recent reading assessment conducted by PISA, a worldwide study by the Organization for Economic Co-operation and Development that examines students' knowledge in reading, mathematics, and science, it was found out that among the 79 participating countries and economies, Philippines scored the lowest in reading comprehension. Reading comprehension is a complex task which depends on a range of cognitive and linguistic processes (Nation, 2019).

In this time that education has been challenged by an unseen enemy, the department has never been thwarted and continued to be dedicated with its commitment to ensure teaching and learning continuity while looking after the health, safety, and also welfare of the learners, teachers, and other personnel. DepEd Order no.12, s.2020 titled Adoption of the Basic Education Learning Continuity Plan (BE-CLP) for School Year 2020-2021 in light of the COVID-19 Pandemic clearly points out that the department shall employ learning delivery modalities (LDMs) to ensure the continued provision of learning opportunities to its learners, while protecting the health and safety of both teachers and learners. Blended learning, distance learning, and home schooling are done.

The Department of Education has been implementing programs to address the problem of the readers on reading and comprehension. One of the programs being implemented is the DO 45, S. 2002 – Reading Literacy Program in the Elementary Schools which has the primary goal of enforcing the policy “Every Child a Reader.” It is expected that no pupil will be promoted to the next higher grade unless he/she manifests mastery of the basic literacy skills in a particular grade level. All possible means of assistance and encouragement shall be extended to enable the child to read. In this connection, all schools are enjoined to develop a School-Based Reading Program that includes the conduct of an inventory of the children’s reading ability, a diagnosis of those who need further reading instruction and appropriate measures to improve reading comprehension.

Furthermore, in line with the K to 12 Program and the goal of making every child should be a reader, the Department is strengthening its reading program through the implementation of the Early Language, Literacy, and Numeracy Program. It has issued the DO 18, s. 2017- Guidelines on the Utilization of the 2017 Every Child a Reader Program Funds for the Early Language Literacy, and Numeracy Program: Professional Development Component. The said program aims to develop in Filipino children the literacy and numeracy skills, and attitudes, which will contribute to lifelong learning. With this, it is the goal of the Department of Education to improve the literacy and numeracy skills of learners from Kindergarten to Grade 3 following the K to 12 Basic Education Curriculum by establishing a sustainable and cost-effective professional development system for teachers.

With the reading programs the Department has been implementing, it also has established reading initiatives and materials that can be used by teachers to help the reading difficulty and comprehension problems of the learners. These include the Philippine Informal Reading Inventory (Phil-IRI), ASER, among others. The Department of Education-Division of Cagayan de Oro has issued a memorandum, DM no.62 s.2019 - School Reading Performance Profiling of Pupils/Students and Monitoring of School Reading Program Implementation: RED-HAT Initiative. The memorandum states that, “In line with the K to 12 Program and the goal of making every child a reader, the Division is strengthening its reading program through the implementation of the Reading is Everybody’s Duty: Holistic Approaches and Techniques (RED-HAT) Initiative, in order for children to be reading well by the end of Grade 3.”

In West City Central School, particularly in the Grade Six level, there are several learners who are identified as frustrated readers. This is one of the major problems of the teachers and the school in general. It is found out that the problem in reading is not only the difficulty to comprehend text, to understand words, to say words correctly, but apparently on the less interest in the culture of reading. It is found out that since learners should embrace and understand first the value of reading.

It is identified that learners have difficulties in understanding the text and in vocabulary. It is understood that "vocabulary is key to reading comprehension. Readers cannot understand what they are reading without knowing what most of the words mean. As children learn to read more advanced texts, they must learn the meaning of new words that are not part of their vocabulary." It is understood that the learners should be engaged in activities where they could develop interest in the culture of reading.

The researcher identified that there was really a problem in the reading performance of the learners. An assessment on reading was conducted by the teacher. Among the 34 learners, 15 or 44. 11% of the learners got a score below average which considered them to be under the frustration level in their reading ability. Since the teacher-researcher identified the problem, an intervention was then used. Apparently, the intervention used was already used as a material for almost three years by the Supreme Pupil Government Council and by other teachers as part of their reading enhancement activities. However, since the officers and members of the council could not provide the tutorial and reading enhancement activities because of the situation, the reading activities were then handed on the parents as they would be the facilitators of the reading activities in their respective homes. The **PAGBIRA-H (Parents and Guardians Bringing Interactive Reading Activities at HOME): A Supplemental Reading Booklet** was then materialized. The booklet was composed of reading drills with the use of flash cards and tongue twister strips, word and phrase reading, story or selection reading, comprehension skills test, and vocabulary games. The parents were also encouraged to make more reading materials that they could use in doing the activities.

The major goal of this study was to provide learners an avenue where they could develop interest in reading and by it, they could increase their reading performance as well.

This study sought to answer the following questions:

1. How did the following factors: poor reading comprehension, lack of vocabulary skill, and attitude towards reading affect the reading performance of the learners?
2. How did the reading activities enhance the reading performance of the learners and develop the interest of reading among them?

This study used the qualitative and quantitative methods in analyzing the data. The participants were asked to rate the level of their reading ability. They were provided with the following components: vocabulary, word and phrase reading, story reading, comprehension, and interest. The learners would only rate themselves based on their knowledge and understanding of the fundamental skill.

This study understood the ethical aspect of considering all the results to be confidential especially concerning the learners. In this case, the researcher asked for permission from the parents to allow their children to be interviewed and reciprocate honestly and completely to the questionnaire given to them. The parents agreed on the intention of the researchers. The researcher explained thoroughly to the respondents why such information about reading ability and the difficulties that they had in reading were asked. They were told that the study that was conducted would not only help them increase their reading performance, but more so the school. And most importantly, the respondents were assured that all information given by them were all kept clandestine.

“Pagbira” is a Cebuano word which means “to pull.” Through the efforts of the parents in using PAGBIRA-H reading booklet to facilitate reading activities at home, it became possible for the learners not only to get rid in the frustration level, but most importantly to realize upon themselves the value of reading.

2. Results and Discussion

In conducting this research, the main protagonist were the parents and guardians to religiously took the task as facilitators of the reading activities in their respective homes. The teacher-researcher constantly communicated with the parents and guardians and with the identified learner-respondents regarding the activities that they were able to do at home as part of the reading activities provided in the PAGBIRA-H reading booklet. After the series of reading activities in the PAGBIRA-H reading booklet, the researcher was able to identify the following findings:

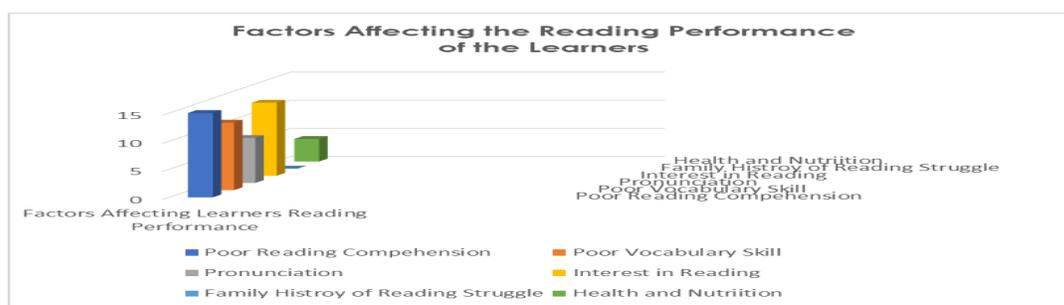


Figure 1: Factors Affecting the Reading Performance of the Learners

Figure 1 shows the factors affecting the reading performance of the learners. Based on the survey conducted among learners, among all the six factors presented, poor reading comprehension was identified as the main problem affecting the reading level of the learners. It was followed by the lack of interest in reading and poor vocabulary skill.

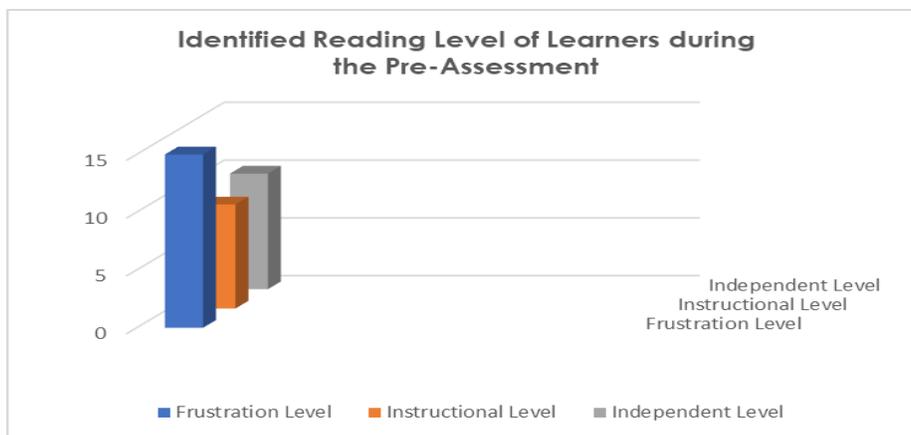


Figure 1. The Identified Reading Level of Learners during the Pre-Assessment

Figure 1 shows the identified reading level of the learners during the conduct of the pre-assessment in reading. The learners were provided with a standardized reading material used by the school. The material had five (5) comprehension questions which would be one of the bases in identifying the reading level of the learners, namely: frustration level, instructional level, and independent level. Learners who were able to get a score of 1 to 3 and read the selection in slow pace was under frustration level. Those who got the score of four (4) were under instructional level, and those who got a score of five (5) were under independent level. Among the 34 learners, 15 or 44.11% of them were under frustration level, 9 or 26.47% were under instructional level, and 10 or 29.41% were under independent level, respectively.

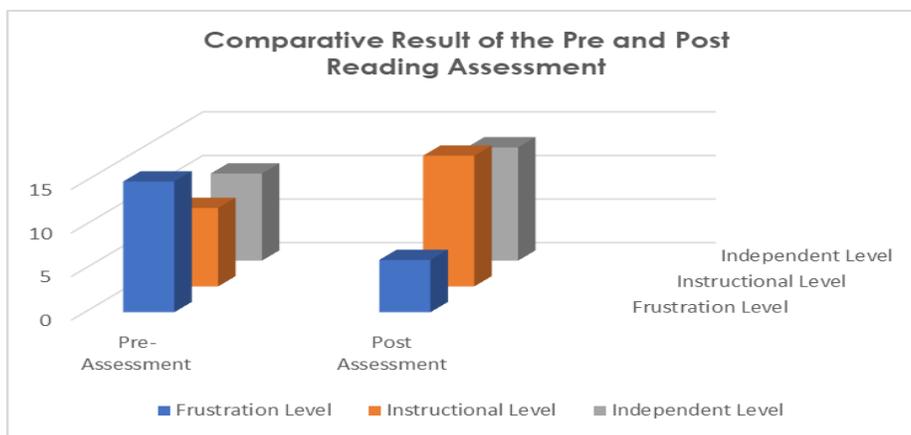


Figure 2: The reading performance of the learners during the pre and post assessment.

Figure 2 shows the comparative result of the pre and post reading assessment. The material used during the pre and post are the same material however the questions for comprehension were interchanged. The data shows that there was an increase in the reading level or performance of the learners.

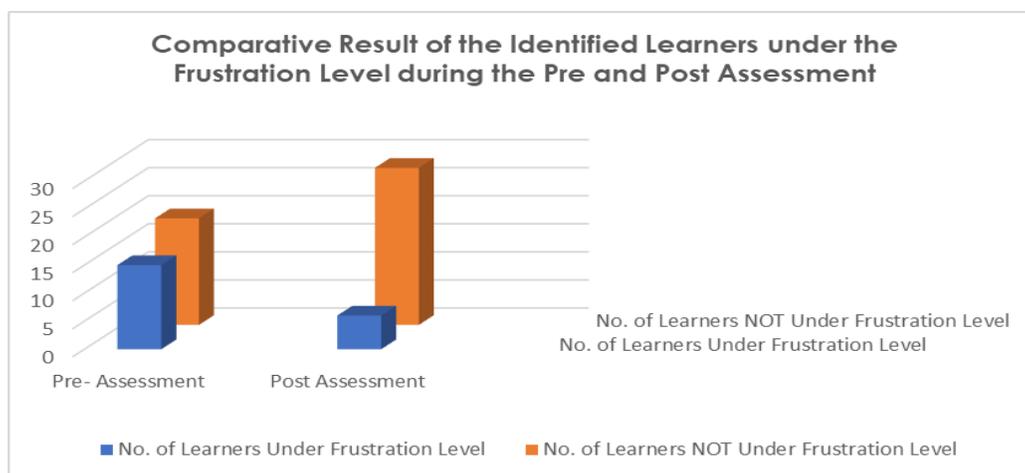


Figure 3: Comparative Result of the Identified Learners under the Frustration Level during the Pre and Post Reading Assessment

Based on Figure 3, shows from 15 or 44.11% who were under frustration level, it decreased to 6 or 17.64% of the learners were under frustration level. From 19 or 55.88%, it increased to 28 or 82.35% of the learners were no longer under the frustration level. It is evident that the learners show an increase in their reading performance and of the reasons is their engagement during the conduct of the reading activities. It showed that they already had the interest in reading.

During the conduct of the survey, the learners were asked to rate themselves regarding the factors that affect their reading performance.

Poor vocabulary skill. Among the 34 learners, 12 of them or 35.29% percent said that they had poor vocabulary skill. They could not understand the words, particularly unfamiliar words that they were reading.

Inability to understand or comprehend text. Since they did not know the meaning of the words, this would result to their misunderstanding of the whole text. It was very evident for in which among the five factors, it was 15 or 44.11 of the learners considered comprehension as the factor that greatly affected their poor reading performance.

Pronunciation. Among the 34 learners, 8 or 23.52% of them said that it was word composition which they had the problem the most. Some of them even said that they could not read words, phrases, especially words that were lengthy.

Develop the reading culture in them. The learners should understand not only to read but more importantly to realize the love of reading. Reading should be a culture to them. They need to have that certain desire and interest to read. Among the participants, 13 or 43.33% of them said that they found reading not so interesting. This number should already alarm the teachers and the parents. Despite of the situation, it was good to know that none of the participants responded that they had lack of support from their parents. It would only mean that parents had the desire to really provide help from their children

in whatever way they could. The problem would really rely on the learners' interest and the discipline he or she would put in to reading.

Family History of Reading Struggle. Based on the result, the learners never had problems with regards to this theme. It would only mean that their family members, particularly their parents, guardians, and other More Knowledgeable Others (MKOs) could read.

Health and Nutrition. Among the 34 learners, only 4 or 11.76% of them said that health and nutrition affected their interest in reading or their reading performance in general.

3. CONCLUSION

The school desires to produce learners who are competent in the fundamental skills, particularly reading.

Part of the responsibilities of teachers is to identify school and classroom problems and give solutions to these problems. If not the best, one of the best possible solutions to remedy these certain problems is to do an action research. It was the very reason why this study was realized.

To understand the words, to read lengthy words and phrases, to comprehend the whole text read, and to develop that culture of reading within oneself, these were apparently the very reasons why this study and the innovation **PAGBIRA-H (Parents and Guardians Bringing Interactive Reading Activities at Home) reading booklet** was realized.

The researcher believed that the implementation of the reading activities which were done at home and facilitated by the parents helped their children to increase their reading performance.

The researcher realized the importance of providing an avenue for learners which would not only be comprehensive but fun-filled wherein they would enjoy and learn. By doing so, the learners would have a great chance to master the reading skill, to increase reading performance, and to help them develop the culture of reading.

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APPENDICES



The parents conducted the reading activities at home.



The PAGBIRA-H reading booklet were given to the parents during the distribution of the self-learning modules.

Effect of CI Project MERALCO to the Reading Performance of Grade 1 Pupils of Knights of Columbus Elementary School: A Basis to Enhance Teachers 'Competence in Teaching Reading

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Abstract: The objective of action research was to reduce the number of frustration readers among Grade 1 Pupils using Project Meralco. The Project Meralco stands for Moving KCES to Enhance Reading Ability to Level-up Comprehension Skills. The study employed descriptive-qualitative research using the interview and data of pre-test and post-test. The test material was coming from PHIL-IRRI designed for first grader. The respondent of the study was 157 Grade 1 pupils of Knights of Columbus Elementary School during the school year 2019-2020. Total enumeration was used to determine the sample size of the study. The study was used mean and t-test for statistical treatment of the data. The study tested the null hypotheses that there is no significant difference in the reading level of first grader of Knights of Columbus Elementary School before and after the implementation of Project Meralco. Findings revealed that based on the interview among Grade 1 pupils the factors that contribute in the poor reading comprehension skills of Grade 1 Pupils fall under lack of instructional materials and poor teachers' technique on how to teach reading. It was also revealed that based on the pre-test results all 157 Grade 1 pupils falls under frustration level. Meanwhile in post-test reading test it was revealed that out of 157 grade 1 pupils 90 pupils were promoted to independent level, 15 pupils were promoted to instructional level and 52 pupils remained under frustration level. Moreover, the mean percentage score of the respondents before the implementation of the Project Meralco was 24.29%. While the mean percentage score of the respondents' after the implementation of the Project Meralco was 73.36%. This shows that there was significant difference in the reading level of Grade One pupils of Knights of Columbus Elementary School before and after the implementation of Project Meralco. The study concluded that first, the poor reading performance of the Grade1 pupils are contributed by the lack of relevant instructional materials and poor teachers' strategies in teaching reading. Second, technical assistance through mentoring program, peer coaching and LAC sessions of various teaching reading strategies, approaches and techniques can improve the reading level of the Grade 1 pupils. Third, the grade 1 pupils can improve their reading performance by motivating them with various techniques and strategies. And last, mentoring program, peer coaching and attending SLAC help teachers' enhance their competence in teaching reading.

Keywords: Project MERALCO, Frustration Level, Teachers' Competence

1. Introduction

The Education System in the Philippines has undertaken series of founding geared towards the improvement of teaching and learning especially on teaching beginning reading. To mention few, DepEd capacitate many seminars in order to ensure that learners are provided with quality education, DepEd conducted different projects and programs that is related to conduct the reading program one this is through Continuous Improvement Project (CIP) which the mean focus was to dig the root cause and make a program as part of the solution.

According to Gutierrez (2018), reading is a perusal of written or printed matter. It is a matter of decoding a series of written symbols as well as associating them with their meanings. Learning to read follows a developmental sequence. In the beginning stage, the child learns that symbols (words) that stand for spoken words. If a child is in a stage of readiness for learning to read, skill in word recognition grows, and patterns of words in phrases and sentences.

Thus, the DepEd issued policies/orders in support of "every child a reader program" (ECARP) which is the DepEd flagship program in reading. These policies are: a) DECS order #34 s 2011 "Two books a year per student" and b.) DepEd order no. 45, s 2002 reading literacy program in elementary schools". The first policy requires all pupils to read at least one book in the vernacular and one book in English. The 2nd enforces the policy that every child should be a reader of Grade 3 and that no pupil shall be promoted to the next higher level of education unless he/she manifest mastery of the basic literacy skills.

Teachers are framed and directed to use varied reading interventions and strategies as well as to emphasize reading with comprehension to achieve the goals of education. The experts generally agree that by the time boys and girls reach 6 ½ of age, various characteristics had developed enough for children to learn to read.

Taglucop (2006) stated that reading is one of the few academic areas in which teachers demand success from all children. Unfortunately, success is not always possible.

According to Gove and Wetterberg (2011), teaching young children to read in their very young age is the cornerstone of improving educational outcomes. Pupils who do not learn to read in the beginning grades struggle to develop more advanced skills, which are often absorbed through reading. Unable to understand printed information, follow written instruction and communicate well in writing, these pupils risk falling further and further behind those who can read effectively in later grades. Without intervention the literacy gap between good and poor readers widens. Effective readers absorb increasing amount of written information, enhancing their vocabularies and improving their comprehension, while ineffective readers lose motivation, reading a fraction of the amount and remaining unable to comprehend more complex information. Reading skills are acquired in phases and all learners of alphabet-based language pass through the same stages.

In addition according to Cove & Cvelich (2011) stated children can, and should, learn to read with understanding by the end of Grade 2, despite differences in complexity between languages and differences in the contexts in which pupils are taught to read. Reading with understanding includes both the ability to decode and understand what is read at the level of words, simple phrases and sentences.

The research conducted by Annie E. Casey Foundation (2010) found out that poor readers are more likely to repeat grades. According to Balsiger (2015), research has

found that children who are reading below grade level in third grade rarely “catchup” in later grades. In fact, first grade reading skills have shown to be strong predictor of 11th grade reading levels. While children who are behind in third grade can catch up with enough intensive intervention, it takes significantly longer if remediation begins after second grade.

Likewise, a research conducted by Penuel (2011) shows that really matters for successful literacy acquisition in the early grades-and beyond is access to and promotion of these factors: Sounds and Letters, Comprehension, Knowledge, Quantity of Practices, Motivation and Personalization

Knights of Columbus Elementary School has a problem on non-readers the record shows by grade level the number of non-readers and these are Grade I – 126 out of 231 pupils, Grade II – 34 out of 236 pupils, Grade III – 16 out of 156 pupils, Grade IV – 8 out of 163 pupils, Grade V – 6 out of 154 pupils and Grade VI-3 out of 150 pupils. The data shows that there are many children who are non-readers in first grader. The researcher defined non-reader as cannot recognized the sounds and letters of alphabets. That is why the researcher being the proponent and team leader of the Project Meralco as one of the Continuous Improvement Project of the school pushes through to make this an action research.

Project Meralco stands for Mentoring to Enhance Reading Ability to level up Comprehension Skills. This project is intended for the grade I pupils to level up their reading comprehension in English and this is also helping the non-readers to become syllabic readers in English.

2. Action Research Questions

This study aimed to reduce the number of frustration readers among Grade 1 Pupils using Project Meralco. The main questions that directed this study were:

1. What are the factors that contribute in the poor reading comprehension skills of Grade 1 pupils at Knights of Columbus Elementary School?
2. What is the reading comprehension performance of the Grade 1 Pupils of Knights of Columbus ES before and after the program implementation of Project Meralco?
3. Is there a significant difference between the pre-test and post-test reading performance of the Grade 1 pupils of Knights of Columbus Elementary School after the implementation Project MERALCO?
4. What enhancement program can be adopted to enhance teachers' competence in teaching reading for the first grader?

3. Intervention Strategies

The CI team presented and introduced the effective teaching delivery process crafted to improve the performance of pupil- respondents in Reading. The proposed action plan to enhance teachers' competence in teaching reading served as the output of the study.

4. Research Methods

4.1 Sampling

This study was used the 157 grade1 pupils who belongs to frustration reader after diagnosing the pre-test using the validated Phil-IRI Materials. Questionnaire checklist was also utilized in order to know the factors that contributed to the poor reading comprehension skills of the Grade 1 Pupils.

Below are the number of participants per section in Grade 1.

Section	Number of Participants
Grade 1 – Gumamela	27
Grade 1 – Daisy	26
Grade 1 – Rosas	23
Grade 1 – Santan	22
Grade 1 - Sampaguita	27
Grade 1 - Dahlia	31
Total	157

4.2 Data Collection

This action research was used the descriptive research methodology using the pre-test and post-test utilizing the valid and reliable test questions coming from the Phil-IRRI intended for the first grader. In addition, this research also used qualitative design using questionnaire checklist.

4.3 Data Analysis

This action research utilized the frequency and rank distribution for problem number 1, mean for problem number 2, and t-test for problem number 3. While for problem number 4 qualitative discussions was utilized based on the results of the CIP.

5. Results and Discussion

To answer the research questions of this research the following questions were submerged:

Problem 1. What are the factors that contribute in the poor reading comprehension skills of Grade 1 pupils at Knights of Columbus Elementary School?

Table 1

Factors that Contributed in the Poor Reading Comprehension Skills of Grade 1 Pupils at Knights of Columbus Elementary School

Factors	Frequency	%	Rank
Lack of instructional materials	63	40.13	1.5
Educational attainment of the parents	12	7.64	

Poor teachers' technique on how to teach reading	63	40.13	1.5
Peer influence	19	12.10	
Total	157		

Based on the results of the interview the factors that contribute in the poor reading comprehension skills of Grade 1 Pupils fall under lack of instructional materials and poor teachers' technique on how to teach reading.

Problem 2. What is the reading comprehension performance of the Grade 1 Pupils of Knights of Columbus ES before and after the program implementation of Project Meralco?

Table 2

Reading Comprehension Performance of the Grade 1 Pupils of Knights of Columbus Elementary School Before and After the Implementation of Project MERALCO

	Pre-Test	Post-Test
Frustration Level	157	52
Independent Level		90
Instructional Level		15
TOTAL	157	157

Based on the results of pre-test there were 157 Grade 1 pupils falls under frustration level. Meanwhile the results of post-test it was revealed that out of 157 grade 1 pupils 90 pupils were promoted to independent level, 15 pupils were promoted to instructional level and 52 pupils remained under frustration level.

Problem 3. Is there a significant difference between the pre-test and post-test reading performance of the Grade 1 pupils of Knights of Columbus Elementary School after the implementation Project MERALCO?

Table 3

Significant Difference Between the Pre-Test and Post-Test Reading Performance of Grade 1 Pupils of Knights of Columbus Elementary School after the Implementations of Project MERALCO

Reading Performance	Pre-Test	Post-Test	Significant Difference
Grade 1 Pupils	24.29%	73.36%	49.07%

Findings revealed that the mean percentage score of the respondents before the implementation of the Project Meralco was 24.29%. While the mean percentage score of the respondents' after the implementation of the Project Meralco was 73.36%. This shows that there is significant difference in the reading level of Grade One pupils of

Knights of Columbus Elementary School before and after the implementation of Project Meralco.

Problem 4. What enhancement program can be adopted to enhance teachers' competence in teaching reading for the first grader?

Based on the results of the study the enhancement program that can be adopted to enhance teachers' competence in teaching reading for the first grader are mentoring program, peer coaching and continuously upgrading themselves in attending the SLAC.

6. Conclusions

The poor reading performance of the Grade1 pupils were contributed by the lack of relevant instructional materials and poor teachers' strategies in teaching reading.

Technical assistance through mentoring program, peer coaching and LAC sessions of various teaching reading strategies, approaches and techniques can improve the reading level of the Grade 1 pupils.

The grade 1 pupils can improve their reading performance by motivating them with various techniques and strategies.

Mentoring Program, Peer Coaching and Attending SLAC help teachers' enhance their competence in teaching reading.

7. Action Plan

In line with the dissemination of the research conducted, this will mainly be disseminated to all department chair, group heads, CI -Research teacher advocates in strengthening instructional supervision and teaching delivery learning process through School Learning Action Cell.

Objectives	Strategies	Person's Involved	Activities	Time Frame	Expected Output	Monitoring and Evaluation
Improve the teaching delivery process of teacher-participants	LAC FGD Pre-Conference	CI Team	Conduct of orientation to Grade 1 English teachers on the developed solutions	Fourth Grading Period	100% of the Science teachers were oriented on the solutions.	Narrative with Pictures and Results of Monitoring and Evaluation

<p>Explain and enhance the process of the project implementation</p>	<p>Classroom Observation</p>	<p>Grade 1 English Teachers School Head Key Teacher</p>	<p>Conduct classroom observation</p>	<p>Fourth Grading Period</p>	<p>Grade 1 English Teachers utilized solutions in their classroom teaching At least 80% of the students have mastery of the subject matter.</p>	<p>Results of CO Test Results</p>
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Optimize Online Reflective Writing Tasks through Padlet

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Abstract. With the current set up of online teaching, monitoring the students' conditions whether academically or emotionally have been a challenge to educators. Hence, intensifying the use of tasks that would allow learners to share their thoughts and feelings while taking a certain course or subject is encouraged. However, merely requiring students to write their experiences seemed to be inadequate. Hence, this study focused on Optimizing Online Reflective Writing Tasks through Padlet. It aimed to describe the use of Padlet as a platform to enhance the reflective writing tasks of students, online. Framed from Kolb's (1984) experiential learning theory, this study involved Languages and Literature students whose age ranged from 17 to 19 years old (SHS to College Freshmen). Purposive sampling was the technique applied in selecting the respondents. The researcher determined the rate of students' compliance with regard to reflective writing tasks prior and after the use of Padlet, and analyzed them through quantitative methods. While the students' perceptions prior and experiences after the intervention were also described qualitatively. In conclusion, the rate of students' compliance to reflective writing tasks increased while students' perceptions and experiences revealed the following attributes of Padlet: "interactive", "relaxing designs" and "ease of use" as indicators of effectiveness as a platform for reflective writing. It was recommended that Language teachers encourage reflective writing in between lessons in an online class and optimize it through the use of Padlet

Keywords: Reflective Writing, Padlet, Online Teaching, Interactive learning, Online Teaching Apps

1. Introduction

The threat of COVID 19 pandemic has led most educational institutions all over the world to resort to online or modular modes of instructions. In such educational set-up, the interaction between teachers and learners apparently becomes limited; thus, guiding students to monitor their class progress and their emotional being required deliberate efforts on the part of the teachers. One of the most common ways utilized by teachers to address such is to require reflective writing tasks among learners. According to Ryan (2013), "reflection allows students to make sense of material/experience in relation to oneself, others, and the conditions that shaped the material/experience" (p.147). "It is a process where students describe their learning, how it changed, and how it might relate to future learning experiences" (Learning and Leading with Habits of Mind, 2008). Even before the pandemic and classes were still conducted face to face, reflective writing had already been part of various subjects/courses' required tasks, especially in Languages and Literature. Dymont et al. (2010) claimed that "one common complaint

from students is that so many of their teachers assign reflective journals that students feel overburdened with this kind of writing. Teachers, on the other hand, sometimes complain that students do not engage in authentic reflection and rely instead on simple description of activities or events" (p.35). For several years of teaching languages and literature subjects in senior high school to tertiary level, the same case has been observed by the researcher. When the transition to online education began, requiring learners to engage in reflective writing even became more demanding and more challenging. Nevertheless, this study assumed that "looking closely in language learning, implementing technological tools and apps might be a good approach" (Haris, et.al, 2017).

One of the online educational apps that teachers commonly use, nowadays, is Padlet. According to Dewitt et al., (2017), "Padlet, is a web 2.0 tool for interaction on a virtual wall and has been used for simple instructional tasks, as well as for more complicated tasks among experts" (p.5). It allows learners to express their thoughts about a common topic easily. Formerly Wall wisher, Padlet is a free application to create an online bulletin board that students can use to display information for any topic (Jaganathan, 2016). It promotes creativity among students as it is like a journal or design notebook to collect ideas, images, and even video clips. "The introduction of Padlet as a learning tool has changed the traditional method of teaching from teacher-centered to student-centered. This can be seen in the classes where the lecturers have integrated Padlet in their teaching, particularly in English writing class." (Mahmud, 2019). In addition, Padlet needs no special training and it is free (Weller, 2013). The researcher, therefore, found it interesting to explore the use of Padlet to optimize the online reflective writing tasks in language and literature subjects.

1.1 Related Studies

Recent studies in the use of Padlet as aid in enhancing the writing skills and class participation of learners have been conducted across countries:

According to Mohd, et.al, (2020), "Padlet has a significant effect on improving students' engagement in classroom activities" (p.1). They found this out after conducting a study on using Padlet for e-learning and presenting the activities of engaging and stimulating students in active learning. They use factors such as motivation, active learning, collaboration, learning community, ease of use and satisfaction to measure students' engagement. A possible reason for this could be Khariz's (2020) claim that "Padlet is a great place for gathering ideas, sharing them and modifying them later", after investigating on students' perceptions of internet technology in learning and the acceptance of Padlet as a microblogging platform for writing skills in German language. Moreover, in an action research which aimed to improve the students' procedure text writing achievement at English Conversation Club by applying Padlet, Fadhilawati, et.al. (2020), presented a positive attitude toward the use of Padlet in teaching and learning writing of procedure text. This could also prove the findings of Algraini (2014) that Padlet was very effective in improving the participant's writing skills, as he investigated the effect of using Padlet on enhancing female Saudi EFL learners' writing performance.

Some studies specifically dealt with the use of Padlet on enhancing the descriptive writing skills of learners. Taufikurohman (2018) investigated the effects of Padlet on Senior High School students' descriptive text writing, and study their perceptions of using Padlet for learning descriptive text writing; wherein, he found out that the students had a positive attitude toward utilization of Padlet application. While in Indonesia, Lestari (2016) concluded that the implementation of Padlet as the media can improve students' writing mastery, after conducting an action research which aimed to know the use of Padlet as the media that can improve the students' mastery in descriptive writing.

Moreover, studies on the use of Padlet by tertiary level students have also been found related. In a 2-cycled action research conducted in a private university in West Java by Nurviyani (2018), reading tests, classroom observations and questionnaire were the data collection used. It was found out that by implementing Padlet application in fostering college students' critical reading skill covering questioning, discussing, interpreting, summarizing and synthesizing, most college students' critical reading skill apparently achieved much improvement from the first cycle. In the same year in Malaysia, Mahmud (2018) assessed the 4Cs in the 21st Learning Skills using Padlet. The results indicated that the assessment via Padlet efficiently assessed the 4C's for the Computing module offered to the undergraduate students. It was found out that Padlet promotes creativity and collaborative learning in the classroom and optimizes the classroom performance.

Perhaps it is safe to assume that the recent studies mentioned already addressed what Rosnida (2014) reported in his study on an academic's exploration with Padlet to support the teaching of Communication Skills that "the pedagogical approaches employed had some influence on students' use of Padlet and despite good intentions, some of these approaches had created barriers to learning" (p.16).

1.2 Research Gap

The above presented studies were found related to this action research as each dealt with utilizing Padlet to enhance either learners' writing skills, engagement or class participation; most subjects utilized were English communication and the participants involved were senior high school to college students. Specifically, active class engagement and enhancement of descriptive writing skills were touched by several studies, but there is no existence of studies focusing on Padlet as a possible effective platform for reflective writing.

1.3 Problem and Purpose

This action research aimed to optimize the reflective writing tasks in Languages and Literature subjects through the use of Padlet as a platform.

Specifically, the researcher sought answers for the following action research questions:

1. How do students and teachers perceive reflective writing tasks BEFORE the use of Padlet?

2. How do students and teachers perceive reflective writing tasks AFTER the use of Padlet?
3. What is the difference between the rates of students' compliance to Reflective Writing tasks before and after the use of Padlet?

1.4 Theoretical Framework

This action research is framed from Kolb's experiential learning theory.

Kolb's Experiential Theory

Kolb (1984) defines experiential learning as "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (p.1). It presents a cycle with four elements: Concrete Experience, Reflective Observation, Abstract Conceptualization and Active Experimentation.

The cycle begins with the students' experience followed by their reflection about it. These are then followed by the abstract conceptualization of students of what were the experiences and an experimentation that will use the concept made. "This begins the cycle anew as students have new experiences based on their experimentation" (Oxendine, Robinson and Willson, 2004) . In the context of this action research, students were asked to share their experience about reflective writing tasks before the use of Padlet, reflect and share their observations about it and conceptualize what makes Padlet effective as a platform and eventually explore on using Padlet for reflective writing.

1.5 Significance

The findings of this study is found beneficial to **Languages and Literature teachers** who are aiming to monitor and guide their students in online reflective writing tasks through allowing them to be engaged and interested at the same time. The pandemic has been causing a lot of unexpected anxieties and discouragements among learners; hence, giving them utilizing online apps where they can share a little about themselves with ease and enjoyment may be possible with Padlet.

Students, on the other hand, may regain their interest in writing and be more active when exposed to Padlet. Being exposed to an interactive environment with classmates through Padlet, may enhance their class participation and engagement to share their personal experiences about a particular subject.

Other Researchers may also use the findings of this study for further research about optimizing online reflective writing or about other features of Padlet that could be of use to enhance online teaching.

1.6 Scope and Limitations

The study only covers the experiences and perspectives on reflective writing through Padlet of the Grade 11, Grade 12 and college freshmen students handled by the researcher from Don Bosco Technical Institute of Makati and De La Salle College of Saint

Benilde and 7 other teachers who teach the same subject with her. Perhaps due to the bulk of online tasks, only 36 out of the projected 60 student participants responded. Other students and teachers who may be using Padlet from the mentioned school are not covered by the study.

2. Methods and Intervention

2.1 Design and Methodology

This action research made use of quantitative and qualitative methods.

2.2 Participants

The researcher employed a purposive sampling technique in determining the participants. For the participants to be included the following qualifications were set: a.) must either be a student of the researcher in Grade 11, Grade 12 or college freshman or a teacher of Language or Literature subject; and b.) must have experienced reflective writing tasks before and after the employment of Padlet.

Students with age ranging from 17 – 19 years old (Grade 11, Grade 12 and College Freshmen) from Don Bosco Technical Institute of Makati and De La Salle College of Saint Benilde respectively and 7 teachers of Language and Literature subjects were determined as respondents.

2.3 Instrument

A survey with open ended questions was utilized. It contained items that require numerical (for the rate of students' compliance to reflective writing tasks) and nominal (for the students' and teacher' perceptions and experiences) data. Considering the current quarantine rules, the survey questions were encoded in Google Forms for easier distribution.

2.4 Data Collection

The researcher sent a letter of permission to conduct a survey among her students and fellow teachers from Don Bosco Technical Institute of Makati and to her two classes of Purposive Communication at De La Salle College of Saint Benilde during the academic year 2020-2021.

2.4.1 Pre-Intervention

The teachers were requested to answer a preliminary survey regarding the rate of students' compliance as regards reflective writing tasks and their observed reasons from those who are not showing interest in such. On the other hand, the researchers' students were also asked to share their perceptions about the reflective writing tasks being required of them in between and every end of the term.

2.4.2 Intervention

Padlet was introduced as an online app among teachers during their annual in-service training and it was initially utilized in the online classrooms as a real-time bulletin-board to gather students' opinions and thoughts about any subject matter being discussed. It was then utilized by the researcher as an assigned reflective writing task for her Oral Communication class and a high percentage of compliance and honest sharing were observed. The researcher then suggested to her fellow teachers teaching the subject to do the same, as all of them are expected to encourage students to write their reflections during the middle part and end of the term. Hence, the use of Padlet as a platform for Reflective Writing Tasks in the Languages and Literature subjects in Don Bosco Senior High and in the PURPCOM classes handled by the researcher in De La Salle College of Saint Benilde was applied.

2.4.3 Post- intervention

The teachers were once requested to answer a survey regarding the rate of students' compliance as regards reflective writing tasks and their observation of them after utilizing Padlet. On the other hand, the researchers' students were also asked to share their experiences of reflective writing tasks after the use of Padlet.

2.5 Data Analysis

The data gathered were analyzed through percentage and ranking for the quantitative data and through codes and themes for the qualitative data.

The rate of students' compliance to reflective writing tasks before and after the intervention were compared. While the perceptions and experiences of teachers and students were coded to draw out themes. Below are the codes employed :

Motivation – (M);

Ease of Use – (EU);

User Satisfaction (US);

Designs – (D); Interactive Feature – (IF),

3. Results and Discussion

Table 1 The perceptions of students and teachers of Reflective Writing Tasks BEFORE the use of Padlet

CODE	THEME	QUOTATIONS
M	Tedious	"It is tedious and time-consuming"
M		"Kinda tedious"
M		"It is somewhat of a hassle"
M		"Requires more time for format and page setup."

M		“unorganized and hassle”
M	Normal Task	“Pretty unusual. Nothing special”
M		“The experience is just the usual: think about the experience, extract what you learned, outline the ideas, preface lessons learned with the struggles faced, and make a coherent essay.”
M		“it's just normal or the usual, it's the traditional way of how one would write their reflection.”
M		“It was pretty normal”
M		“It was fairly simple. I just used Word or Google docs”
M		“it's like a normal writing”

Table 1 presents the perceptions of students and teachers of Reflective Writing Tasks BEFORE the use of Padlet. Apparently, almost all of the items were coded as M; which may mean that motivation (M) is one of the things considered by students and observed by teachers as regards compliance to reflective writing tasks. Most of the students perceived reflective writing tasks as “tedious” and just a “normal task”; hence, the rate of their compliance before the intervention has been made has not been that high. Kolb's (1984) experiential theory states that knowledge is created through the transformation of experience. If the students see reflective writing tasks as something normal, and do not offer them something new and tedious on their part, their motivation to do the task may probably be affected.

The researcher had personally observed how some students would comply with reflective writing tasks before the utilization of Padlet and it indeed appeared that students would consider it just as a mere requirement that needs to be done. Having no other motivation to accomplish it would really lead many of them to either comply half-heartedly or not comply at all.

Table 2 The perceptions of students and teachers of Reflective Writing Tasks AFTER the use of Padlet

CODE	THEME	QUOTATIONS
EU	Ease of Use	“It's more convenient and easier to use.”
EU		“It took less time for me to think and write my reflection since it works like a blog and I'm usually a person that likes to keep things simple when it comes to reflections.”
EU		“I can share my reflection automatically in padlet, “It is much more convenient since it can be accessed immediately and there is less hassle than creating a word file and submitting it on the classwork.”
EU		“Different and Unique mostly in terms of what you can add and how flexible you can use it as.”
EU		“It was easier because it is very easy to use and when I lost connection, my progress automatically saved.”

EU		"It organizes the process and makes my thought more productive."
IF	Interactive	"It is more engaging and interactive as we can see that there are other responses."
IF		"Convenient and interactive."
IF		"It is more fun and engaging since I can provide pictures to support my reflections."
IF		"It's a challenge for me by simply doing a typewriting skill in alot of keys and thoughts."
IF		"Padlet, made these tasks more welcoming and interactive to each and every member of the class."
		"It's more interactive since we can comment on each others' pads,"
D	Design	"The templates there are aesthetic and It will match with how your work would feel to the viewer's eyes."
		"It is appealing to the eyes which makes it enjoyable."
		"Padlet also allows some student and teacher creativity since you can change the look of your page and the posts on it."
		"The template designs provides more room for you to be creative."
		"It is more stylish and organized and its modish appearance."

Table 2 shows the perceptions of students and teachers of Reflective Writing Tasks after the use of Padlet. Three themes such as "ease of use", "Interactive" and "creative design" were drawn out from the majority of the perceptions. Padlet, indeed has features that are user-friendly and interactive. As stated by Weller (2013), Padlet is free and requires no special training to be used.

The participants of the study are no longer youngsters, as they have age ranging from 17 to 19; hence, it is surprising to note that Padlet's designs (through templates) still appealed to them. Perhaps, the motivation of students to accomplish online reflective tasks through Padlet could be considered parallel to the environment sent by a usual physical classroom. In Padlet, the creative designs may serve as the physical environment that may inspire them to write, while the "ease of use" and "interactive" attributes give them a sense of security that it could be done and they are not alone in accomplishing it. This could be supported by one claim such as ""It is more engaging and interactive as we can see that there are other responses." Others may find it absurd that a class activity allows a student to see another's response, but it has been observed by the researcher that such helps encourage other students to write their own. As per experience, the researcher has never encountered any similar response from her students, even if they are seeing each other's entries. Perhaps, it is also because students are well-engaged in the platform that they feel the need to have an entry of their own. This could be supported by these claims from the students themselves: "Padlet, made these tasks more welcoming and interactive to each and every member of the class." and "It's more interactive since we can comment on each other's pads".

Table 3. The rate of students compliance to Reflective Writing Tasks as reported by Language and Literature teachers

Pre-intervention		Post-intervention	
T1	40%		70%
T2	33%		57.75%
T3	55%		96.25%
T4	38%		66.5%
T5	51%		89.25%
T6	40%		70%
T7	52%		91%
Mean	44.14		77.25

The table above shows the rate of students' compliance to reflective writing tasks before and after the intervention as reported by their Language and Literature teachers. It is noticeable that percentages apparently went higher after the intervention has been applied. It appears that there was a 75% increase in the students' compliance rate based on the means presented. Such results may imply that the use of Padlet as a platform for Reflective Writing Task may encourage more participation on students. This could be supported true by Mohd, et.al, (2020) who claimed that "Padlet has a significant effect on improving students' engagement in classroom activities" (p.1).

4. Conclusion and Recommendations

This action research dealt with the use of Padlet as a platform to optimize reflective writing tasks particularly in Languages and Literature subjects. The researcher discussed the perceptions of students and teachers as regards reflective writing before the intervention was applied. Most of the perceptions which dominated were coded as (M), as in motivation. From here, the researcher found out that perhaps students were not that motivated to comply with reflection writing tasks because they find it just a normal writing task that will consume their time and effort, without necessarily realizing its real purpose which is to give them a venue to share about themselves. Thus, the researcher found it necessary to employ a certain online app to optimize the task; hence, the use of Padlet as a platform.

The students' and teachers' perceptions of the reflective writing tasks after the intervention were observed to be somehow affirmative. Themes, such as "Ease of Use", "Interactive" and "Creative Design" were drawn out. Most students and teachers claimed that the use of Padlet indeed improved not only compliance but students' engagement to the task. From these results, the researcher found out that Padlet has features more than what a reflective task requires. It could offer a lot to its users which lead them to perceive it affirmatively.

After the intervention, an increase in students' compliance rate was reported by the teacher participants. In this regard, the researcher concluded that using Padlet as a platform indeed optimizes the online reflective writing tasks.

The researcher, therefore, recommends the teachers of Language and Literature to explore on Padlet as a platform particularly in reflective writing; the students to see reflective writing as a task that would give them a venue to share themselves and Padlet as a platform for them to optimize doing it. Other researchers are also recommended to explore other features of Padlet and to sort the perspectives of students from teachers if the same approach will be done.

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Another look at the Acceptability of Philippine English through the Lens of Basic Education Teachers

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Abstract. While there have been studies and awareness seminars conducted in the promotion of Philippine English (PE), still PE has not fully-penetrated in most public schools. Hence, the study sought to identify the acceptability of PE among English teachers from a secondary high school in Pampanga. PE's levels of acceptability were determined using Torres and Alieto's (2019) Grammatical and Lexical Acceptability Questionnaire. Pre-test result revealed that teachers have low acceptability level of the PE grammatical and lexical items and that they are not aware of the PE. A webinar was conducted to introduce the PE among teachers and the post-test showed a significant difference to their acceptability level. Furthermore, teachers' answers to the follow up questions imply that they are willing to introduce PE in the classroom, which they believe will help the students to be more conversant and become more confident in speaking the English language. It is concluded that teachers are open to incorporating the PE in their classes to further improve their students' confidence in learning the language. The following recommendations were given: (1) Teachers should be provided with more seminars that will update them with the current status of Philippine English; (2) Teachers should be encouraged to consider the Philippine English in motivating students to be confident speakers in the English classes; and (3) School administrators and English teachers should promote the acceptance of Philippine English in the academic context.

Keywords: Philippine English acceptability, promotion of PE, PE grammatical and lexical items, public school teachers' perceptions

1. Introduction

English is the global language (Crystal, 2001). It has become the dominant language around the world (Matsuda & Matsuda, 2010). English is referred to as the language of global competitiveness, the language of the open global labor markets, and the language of information and communication (Bernardo, 2007). Moreover, Bautista and Bolton (2008) claimed that "the Philippines is one of the most significant and most interesting English-using societies in Asia, where there has been a general awareness and recognition of a localized variety of English..."

Bautista (2000) stated that the distinct features of Philippine English (PE) are not —errors, instead are proof of having the language nativized because it reflects the Filipino culture and identity. Gonzales (1983, cited in Bautista, 1997) termed these so-called —errors as features. It does not mean also that all errors are considered features. Gonzales explained that it could only be considered as a feature if the error is not a source of

miscommunication. Moreover, De Leon (2016) stated that English in the Philippines is a variety of English. Even though English is not the Filipinos' first language, Filipinos are able to nativize it.

The Standard Philippine English is found acceptable among educated Filipinos and it also has an informal variety, especially in the spoken mode, which may include a lot of borrowing and code-mixing.

The work of Bautista (2006) with Susan Butler of Macquarie Dictionary in compiling a list of Philippine English words for inclusion in an Asian English Dictionary aimed to form an Asian English database. Also, Bautista (2006) found out that Philippine English has continuously thrived, that gave birth to new words which are popularly and widely used by Filipinos today.

There has been awareness of the existence of Philippine English (PE) but it does not come with acceptance (Martin, 2014). This means that there is a need to explore attitudes towards PE. Moreover, there are insufficient studies exploring attitudes towards Philippine English. One of the few studies on this topic is the study of Bautista (2014), which explored the language attitudes of 88 English Language teachers. But the study was limited to only three top universities in the Philippines.

It is important to stress out that teachers always play a vital role in the learning process of the students. Therefore, Filipino students' attitude towards learning the English language is influenced by how teachers perceive it. Their attitude towards Philippine English is an essential factor to explore in the goal of promoting the acceptance of Philippine English. As mentioned by Dita & De Leon (2017) "educators have to be perceptive on the factors that involve intelligibility and comprehensibility of a variety or varieties of English for them to be able to raise students' awareness on English varieties."

Borlongan (2011) is one of those who promote the use of PE in classrooms. He suggested of teachers' retraining, also the development of new instructional materials based on the existing corpora of PE. However, there are groups who do not fully agree on the status of PE as a Standard English and consider the former inferior to the latter. In most public schools especially, it has not fully penetrated yet.

Thus, a convincing motivation for this study, and in response to the need to conduct more studies in Philippine English, this study aims to determine the public-school teachers' extent of acceptability in Philippine English.

1.1 Statement of the Problem

The main purpose of this study is to determine the Public School Teachers' Extent of Acceptability in Philippine English among the English Teachers of Emigdio A. Bondoc High School, San Luis, school year 2020-2021.

Specifically, this study will seek answers to the following problems:

1. How may the teachers be described in terms of:
 - a. Age;
 - b. Gender;
 - c. Educational Attainment;
 - d. Length of Service;
 - e. Last school attended;
 - f. Languages spoken; and
 - g. Perceived English Language Proficiency?

2. What is the extent of teachers' acceptability in Philippine English based on the GLAQ?
3. Is there a significant difference in extent of Acceptability in Philippine English among English Teachers after the conduct of Philippine English seminar?
4. What are the participants' opinions on PE after the webinar?
 - a. Did the session change your perspective about Philippine English? Briefly explain.
 - b. How do you see Philippine English in your own class in the future?
 - c. What is the best idea in the session that you plan to use?

1.2 Statement of Hypothesis

There is no significant difference in the extent of Acceptability in Philippine English among English Teachers after the conduct of Philippine English seminar.

1.3 Scope and Limitations of the Study

The researcher believed that the teachers' awareness of Philippine English can be tapped which will be helpful in facilitating English lessons among students of Emigdio A. Bondoc High School, San Luis. This study is intended to raise awareness of Philippine English among teachers and in the end, have a solution to the problem in students' self-expression in English in the modular activities for the school year 2020-2021. The study is delimited to using the Torres & Alietto's Grammatical and Lexical Items Acceptability Questionnaire (2019) which determined the teachers' judgment on identifying the acceptability levels of PE grammatical and lexical items.

Pre-Test and Post-Test were used to identify the level of acceptability of teachers. Descriptive-Qualitative types of research were used in this study. Seven (7) language teachers teaching English in senior and junior high school were the respondents of the study. To describe the teachers in terms of age, gender, educational attainment, and length of service, the last school attended, languages spoken; and perceived English language proficiency, frequency counts, percent distribution, weighted mean were used. To describe the teachers in terms of age, gender, educational attainment, and length of service, before and after exposure to the intervention, frequency counts, percent distribution, weighted mean, and standard deviation were used. To determine if there is a significant difference in the extent of acceptability in Philippine English among English Teachers who were exposed to the intervention, a t-test for independent samples was used.

2 Method

2.1 Type of Research

The method of this study was descriptive as it aimed at explaining the level of acceptability of the different grammatical and lexical items among EABHS teachers. It

also determined the significant difference in the level of awareness after the conduct of the Philippine English Seminar.

2.2 Participants and Sampling Method

A purposive sampling technique was used in identifying the participants of this study. It involved all English teachers both in junior and senior high school were identified by the researcher during the second quarter of the first semester, SY 2020-2021. It is assumed that the teacher-respondents are not aware of Philippine English and its pedagogical impact.

2.3 Instrument

The study used the Grammatical and Lexical Items Acceptability Questionnaire (Alietto & Torres, 2019) which determined the teachers' judgment on identifying the acceptability levels of PE grammatical and lexical items. The first part of the instrument requested the participants to provide their basic information. For the second part, the participants were asked to tick the number that represents the level of acceptability of the different grammatical and lexical items. The respondents were also asked for follow up questions after the conduct of the session.

2.4 Data Collection

In gathering the needed information, the researcher asked for the approval of the school head to conduct the study. Likewise, the cooperation of other English teacher-respondents was sought during the implementation of the intervention program. The English teachers answered Torres & Alietto's (2019) Grammar and Lexicon Assessment Questionnaire which was reformatted using Google form and were answered online to avoid physical contact. After collecting and interpreting the results of the questionnaire, the researcher determined if there is a need to conduct a seminar on Philippine English among teacher-respondents through an invited speaker who is also one of the researchers and promoters of Philippine English. The online seminar was scheduled and conducted as soon as the results were interpreted. Pre-test and post-test assessments were administered to the teacher-respondents to determine its effectivity. Data analysis and interpretation followed. The study was finished in March 2021.

The gathered data was subjected for analysis and interpretation. The data was analyzed using Microsoft excel to facilitate the computation and analysis. Results of the pre-test and post-test for each intervention session were also subjected for analysis and interpretation. As such, frequency counts, percent distribution, weighted mean, and standard deviation were used. Likewise, it employed t-test for independent samples.

3 Presentation, Analysis and Interpretation of Data

This chapter presents the data gathered in this study. The data were presented, analyzed, and interpreted to establish clarity of presentation and consistency in the discussion. The discussion was guided by the questions based on the general problem of the study: What is the extent of public school teachers' acceptability in Philippine English?

The following questions were addressed in this study:

1. How may the teachers be described in terms of:
 - a. Age;
 - b. Gender;
 - c. Educational Attainment;
 - d. Length of Service;
 - e. Last school attended;
 - f. Languages spoken; and
 - g. Perceived English Language Proficiency?

Table 1. Respondents' Age Profile

Age	Frequency	Percentage
21-25	2	28.57%
26-30	4	57.14%
31-35	0	0%
36-40	1	14.29%
Total	7	100%

It can be gleaned from the table above that majority of the respondents' age fall between 26-30 years old or 57.14%, 1 respondent or 14.29 % age is between 36-40, and 2 respondents or 28.57 % are between 21-25 years old.

Table 2. Respondents' Gender Profile

Gender	Frequency	Percentage
Male	1	14.29%
Female	6	85.71%
Total	7	100%

Based on the table above, 6 out of 7 or 85.71% are female respondents and there is only 1 male respondent.

Table 3. Respondents' Education Attainment Profile

Education Attainment	Frequency	Percentage
Bachelor's Degree	5	71.43%
Masteral	2	28.57%
Doctorate	0	0%
Total	7	100%

The above table shows that a majority of the respondents (71.43%) are Bachelor's degree graduates, while 2 out of 7 or 28.57% are Master's degree holders and no one is enrolled nor graduated in doctorate degree (0%).

Table 4. Respondents' Length of Service Profile

Length of Service	Frequency	Percentage
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1-3	2	28.57%
4-6	2	28.57%
7-9	3	42.86%
10 or more	0	0%
Total	7	100%

The above data shows that 3 out of 7 or 42.86% of the respondents have been teaching in the public school for 7 to 9 years while 2 out of 7 or 28.57% are teaching for 4 to 6 years and the other 2 out of 7 teachers are newest in the service for 1 to 3 years. No teachers teaching in the public school beyond 10 years are involved in the study.

Table 5. Respondents' Last School Attended Profile

Last School Attended	Frequency	Percentage
Private	2	28.57%
Public	5	71.43%
Total	7	100%

5 out of 7 or 71.43% of the respondents graduated from a public school or university and only 2 respondents came from private school or university.

Table 6. Respondents' Language Spoken Profile

Language Spoken	Frequency	Percentage
English	0	0%
Filipino	0	0
English and Filipino	7	100%
Total	7	100%

From the above data, it shows that all of the respondents or 100 % of them are speaking both English and Filipino languages.

Table 7. Respondents' Perceived Language Proficiency Profile

Perceived Language Proficiency	Frequency	Percentage
Intermediate	1	14.30%
Upper Intermediate	1	14.30%
Advanced	4	57.10%
Proficient	1	14.30
Total	7	100%

Data shows that 4 out of 7 respondents or 57.10% rated their language proficiency to be Advanced while 1 out of 7 or 14.30% rated intermediate, another 1 out of 7 or 14.30% rated upper intermediate and 1 out of 7 or 14.30% proficient.

- d. What is the extent of teachers' acceptability in Philippine English based on the GLAQ?

Table 8. Extent of Teacher's acceptability in Philippine English based on the GLAQ (Pre- Assessment)

Grammatical/ Lexical Items	R1	R2	R3	R4	R5	R6	R7	AVERAGE	Verbal Description
1. Failure to return borrowed books from the library on time can result to fines and other penalties.	4	3	2	4	4	4	4	3.57	Accepted
2. Many classic movies are based from popular novels	4	3	4	1	3	1	4	2.86	Somehow accepted
3. My perspective is sometimes different for your perspective.	1	2	1	1	4	1	1	1.57	Unaccepted
4. During quizzes, students are asked to fill the blanks.	1	1	1	1	3	1	1	1.29	Unaccepted
5. Students should learn to cope up with the challenges in their studies.	4	3	3	4	4	1	1	2.86	Somehow accepted
6. Students have different views with regards success	4	2	1	4	3	1	1	2.29	Somehow unaccepted
7. There are a number of organizations wherein students can join.	3	2	2	4	3	3	4	3.00	Somehow accepted
8. It's a more correct answer.	4	1	1	3	2	3	1	2.14	Somehow unaccepted
9. Students should get involved to extra-curricular activities.	3	3	3	4	4	3	4	3.43	Accepted
10. The secretary attended the meeting in behalf of her boss.	1	3	4	1	1	3	4	2.43	Somehow unaccepted

11. Majority of students nowadays use online references to do their papers.	4	4	4	4	3	2	1	3.14	Somehow accepted
12. It must be enacted to a law whatever the political cost.	3	3	1	1	2	3	4	2.43	Somehow unaccepted
13. They left the Philippines before their children entered college.	4	1	3	1	2	3	4	2.57	Somehow accepted
14. Students are required to attend the symposium which would be held in May.	1	1	1	4	3	2	1	1.86	Somehow unaccepted
15. The use of social media have been the most significant change in the last decade.	1	2	1	1	4	2	4	2.14	Somehow unaccepted
16. The number of students enrolled last term have increased.	1	2	3	1	3	4	1	2.14	Somehow unaccepted
17. A number of different teaching techniques has emerged.	1	2	1	1	4	4	1	2.00	Somehow unaccepted
18. Either the students or the teacher know how to open the presentation.	1	1	1	1	4	2	1	1.57	Unaccepted
19. One-third of the test items was asked during the review	4	3	4	4	2	1	4	3.14	Somehow accepted
20. This method, along with other	1	1	3	1	4	3	1	2.00	Somehow unaccepted

methods, are applicable now.									
21. I, together with my other classmate, are attending the symposium.	1	1	3	1	4	2	1	1.86	Somehow unaccepted
22. That is one of the reason why I chose to pursue my education.	2	1	4	1	4	1	1	2.00	Somehow unaccepted
23. The president assured free tuition to all State Universities and Colleges.	4	2	4	1	3	3	1	2.57	Somehow accepted
24. In schools, students are taken cared of by their teachers.	1	2	3	1	4	2	4	2.43	Somehow unaccepted
25. Due to the requirements, me and my group mates are staying in the hostel over the weekend.	4	1	2	1	4	1	1	2.00	Somehow unaccepted
26. In pair work, choose the person who you think you could work well with.	4	2	1	4	4	1	1	2.43	Somehow unaccepted
27. Since its very traffic in Metro Manila, I don't want to study there.	3	2	1	4	4	1	1	2.29	Somehow unaccepted
28. Thank you for the invite you sent last week.	1	1	3	1	3	1	1	1.57	Unaccepted
29. My teacher has that fascination in vintagy items.	1	1	3	3	4	1	1	2.00	Somehow unaccepted
30. Since I was not responding to his message, he	4	3	1	3	3	3	1	2.57	Somehow accepted

unfriended me in Facebook.									
31. He would unsmile whenever that person passes by.	1	2	1	1	3	1	1	1.43	Unaccepted
32. I have PMed to you the proposal	4	1	2	3	2	1	1	2.00	Somehow unaccepted
33. When he heard the news, he OMGed.	1	1	3	1	3	1	1	1.57	Unaccepted
34. The materials were already xeroxed yesterday.	1	1	4	1	4	1	3	2.14	Somehow unaccepted
35. I will return next week.	4	3	3	4	3	3	4	3.43	Accepted
36. The celebrant did not expect the kind of party given to him during his 45th birthday.	4	3	1	4	3	3	4	3.14	Somehow accepted
37. This is necessarily needed to pass the course.	4	3	4	4	4	1	1	3.00	Somehow accepted
38. The five members divided the task between themselves.	1	3	1	1	3	1	1	1.57	Unaccepted
39. She tried to quickly finish the book before she had to leave	3	2	1	3	2	1	1	1.86	Somehow unaccepted
40. I should drink fewer coffee.	1	2	4	1	1	1	1	1.57	Unaccepted
41. My doctor advised me to have less doughnut for my immediate recovery	1	2	2	1	2	1	1	1.43	Unaccepted
42. He will bring his father to	4	3	4	3	1	3	3	3.00	Somehow accepted

Tagaytay this summer.										
43. Faculty members are engaged in their respective researches.	4	3	4	4	3	3	1	3.14	Somehow accepted	
44. Last February 14, I did a not so valentiney undertaking.	1	2	1	2	2	3	1	1.71	Unaccepted	
AVERAGE								2.30	Somehow unaccepted	

Rating Scale

Range	Nominal Scale	Symbol	Description
1.00-1.75	1	UA	Unaccepted
1.76-2.5	2	SU	Somehow Unaccepted
2.51-3.25	3	SA	Somehow Accepted
3.26-4.00	4	A	Accepted

It can be gleaned from the data above that the respondents have low acceptability of the Philippine English based on the GLAQ. It shows an average of 2.30 which is interpreted as Somehow Unaccepted. This implies that the respondents of this study are not familiar with the lexical and grammatical features of the Philippine English and even with the Philippine English itself. As found out by Gustilo & Dimaculangan (2018), many ESL teachers who are still unaware of the existence of the Philippine English variety and the concept of World Englishes impacted the sociolinguistic reality of Philippine English and their negative attitude to specific Philippine English features. The variety is not fully supported by ESL teachers.

This prompted the researcher to conduct necessary action to address the issue through the conduct of Philippine English webinar.

Table 9. Extent of Teacher’s acceptability in Philippine English based on the GLAQ (Post Assessment)

Grammatical/ Lexical Items	R1	R2	R3	R4	R5	R6	R7	AVERAGE	Verbal Description
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1. Failure to return borrowed books from the library on time can result to fines and other penalties.	4	4	3	2	4	4	3	3.43	Accepted
2. Many classic movies are based from popular novels	3	4	3	2	4	3	3	3.14	Somehow Accepted
3. My perspective is sometimes different for your perspective.	4	4	3	4	4	3	4	3.71	Accepted
4. During quizzes, students are asked to fill the blanks.	3	1	1	1	3	4	1	2.00	Somehow Unaccepted
5. Students should learn to cope up with the challenges in their studies.	4	1	3	4	3	3	3	3.00	Somehow Accepted
6. Students have different views with regards success	4	4	3	4	4	4	4	3.86	Accepted
7. There are a number of organizations wherein students can join.	4	1	3	4	3	3	4	3.14	Somehow Accepted
8. It's a more correct answer.	4	3	3	4	3	3	4	3.43	Accepted
9. Students should get	3	3	1	3	4	3	3	2.86	Somehow Accepted

involved to extra-curricular activities.									
10. The secretary attended the meeting in behalf of her boss.	4	1	1	1	1	3	2	1.86	Somehow Unaccepted
11. Majority of students nowadays use online references to do their papers.	4	1	3	1	4	3	3	2.71	Somehow Accepted
12. It must be enacted to a law whatever the political cost.	3	1	1	4	4	4	4	3.00	Somehow Accepted
13. They left the Philippines before their children entered college.	4	4	1	4	4	2	3	3.14	Somehow Accepted
14. Students are required to attend the symposium which would be held in May.	3	1	3	4	4	3	3	3.00	Somehow Accepted
15. The use of social media have been the most significant change in the last decade.	3	1	1	3	1	3	3	2.14	Somehow Unaccepted
16. The number of students enrolled last	3	1	1	1	2	4	3	2.14	Somehow Unaccepted

term have increased.									
17. A number of different teaching techniques has emerged.	4	1	1	1	3	3	2	2.14	Somehow Unaccepted
18. Either the students or the teacher know how to open the presentation.	4	3	3	4	3	3	1	3.00	Somehow Accepted
19. One-third of the test items was asked during the review	4	4	3	4	4	3	4	3.71	Accepted
20. This method, along with other methods, are applicable now.	4	1	1	1	4	4	3	2.57	Somehow Accepted
21. I, together with my other classmate, are attending the symposium.	4	4	1	1	3	3	1	2.43	Somehow Unaccepted
22. That is one of the reason why I chose to pursue my education.	3	4	1	3	3	3	2	2.71	Somehow Accepted
23. The president assured free tuition to all State Universities and Colleges.	3	4	4	4	3	4	2	3.43	Accepted
24. In schools, students are taken cared	3	4	3	4	4	3	3	3.43	Accepted

of by their teachers.									
25. Due to the requirements, me and my group mates are staying in the hostel over the weekend.	3	4	3	3	4	2	3	3.14	Somehow Accepted
26. In pair work, choose the person who you think you could work well with.	3	1	3	2	4	3	2	2.57	Somehow Accepted
27. Since its very traffic in Metro Manila, I don't want to study there.	1	4	3	4	4	3	2	3.00	Somehow Accepted
28. Thank you for the invite you sent last week.	1	4	3	4	4	3	2	3.00	Somehow Accepted
29. My teacher has that fascination in vintagy items.	1	4	3	2	4	3	2	2.71	Somehow Accepted
30. Since I was not responding to his message, he unfriended me in Facebook.	1	1	4	4	4	4	4	3.14	Somehow Accepted
31. He would unsmile whenever that person passes by.	1	1	3	3	4	4	3	2.71	Somehow Accepted
32. I have PMed to you the proposal	1	4	3	3	3	4	2	2.86	Somehow Accepted
33. When he heard the	1	4	3	1	3	3	3	2.57	Somehow Accepted

news, he OMGed.									
34. The materials were already xeroxed yesterday.	2	4	3	3	3	3	3	3.00	Somehow Accepted
35. I will return next week.	3	4	3	4	4	2	3	3.29	Accepted
36. The celebrant did not expect the kind of party given to him during his 45th birthday.	2	4	3	4	3	2	2	2.86	Somehow Accepted
37. This is necessarily needed to pass the course.	1	4	3	4	4	4	3	3.29	Accepted
38. The five members divided the task between themselves.	4	4	3	3	3	4	4	3.57	Accepted
39. She tried to quickly finish the book before she had to leave	1	4	1	1	3	3	2	2.14	Somehow Unaccepted
40. I should drink fewer coffee.	3	4	3	2	3	3	3	3.00	Somehow Accepted
41. My doctor advised me to have less doughnut for my immediate recovery	2	4	3	4	4	4	4	3.57	Accepted
42. He will bring his father to Tagaytay this summer.	2	4	1	3	3	4	2	2.71	Somehow Accepted
43. Faculty members are engaged in	2	4	3	4	4	4	3	3.43	Accepted

their respective researches.									
44. Last February 14, I did a not so valentiney undertaking.	4	4	1	2	3	3	2	2.71	Somehow Accepted
AVERAGE								2.94	Somehow Accepted

It can be gleaned from the above table that the average post assessment result of the respondents is 2.94 which is verbally interpreted as Somehow Accepted.

3. Is there a significant difference in extent of Acceptability in Philippine English among English Teachers after the conduct of the Philippine English seminar?

Table 10. T-Test: Two-Sample Assuming Unequal Variances

	Variable 1	Variable 2
Mean	16.09091	20.56818
Variance	19.0148	11.50687
Observations	44	44
Hypothesized Mean Difference	0	
df	81	
t Stat	-5.37571	
P(T<=t) one-tail	3.59E-07	
t Critical one-tail	1.663884	
P(T<=t) two-tail	7.18E-07	
t Critical two-tail	1.989686	
0.000000718	Computed value	t-

Table 11. Test for Significant Difference of the English Teachers before and after their exposure to Philippine English seminar (Pre-Assessment and Post-Assessment)

Assessment	Mean	Standard deviation	t	p-value	Decision
Pre-Assessment	16.09	4.36	0.000000718	0.000	Reject HO
Post-Assessment	20.57	3.39			

The table presents the test of significant difference of the English teachers in their pre-assessment and post-assessment. It can be gleaned on the table that the mean score of the 7 respondents in their pre-assessment is 16.09 and in their post-assessment is 20.57. that data only reveals that there is a significant

difference considering the computed t-value of 0.000000718 and p-value of 0.000. This only implies that there is a significant difference in the English teachers' acceptability level before the utilization of teachers' intervention.

4. What are the participants' opinions on Philippine English after the webinar?

- 4.1 Did the session change your perspective about Philippine English? Briefly explain.

Table 12. Teachers' Response on Question 4.1

RESPONDENTS	RESPONSES	CODE
R1	Yes, the language variation changed on how should we introduce it and effectively teach it to the society.	Introducing PE to students
R2	Yes. It gives refresher course.	Refresher course
R3	Yes, teachers should be more accepting in terms of the language students use so they would speak more often in class and eventually remove their anxieties in speaking the language.	Accepting PE/Introducing PE to students
R4	Yes. The session has helped me understand more the relevance of PE in the progress of students' English-speaking skills.	Accepting PE
R5	This session did not change my perspective literally about Philippine English but it did expand my knowledge which I can use and apply in teaching my students.	Introducing PE to students
R6	Yes, because I am only seeing and following American English standards, but after the session I clearly understood that Philippine English should be given an equal importance.	Accepting PE
R7	Yes. The session made me appreciate and embrace Philippine English more. It made me realize that Philippine English terminologies are not mistakes but are only deviations that reflect our country's own culture and history.	Accepting PE

Based on the stated follow up question, majority of the respondents changed their perspective about Philippine English as indicated on the codes which describes their acceptance of the Philippine English and their willingness to introduce it to their students.

As emphasized by Gustilo & Dimaculangan (2018), ESL teaching should be extended to the teaching of Philippine English and language awareness if nativization or linguistic independence is the goal of Philippine English stakeholders. Somehow, the conduct of an awareness campaign such as a webinar or a seminar must have been the solution to

previously mentioned study which may change the perspective of ESL teachers who have tremendous influence on student speakers of PE, of not yet being open to the idea of accepting some Philippine English lexicon.

4.2 How do you see Philippine English in your class in the future?

Table 13. Teachers' Response on Question 4.2

RESPONDENTS	RESPONSES	CODE
R1	Philippine English will definitely improve the students' capabilities in dealing the evolving language systems.	Improving students' language capability
R2	Very helpful.	--
R3	I see it as a more conversational tool that greatly helps students in becoming communicative in the English language. Philippine English should be given more limelight so it could be widely recognized even in formal written discourse	Helping students to be communicative
R4	I see it as another way to encourage students to participate actively in oral discussion and express themselves freely without hesitations or fear.	Encouraging students to be communicative
R5	Philippine English will have a better place in my class, not only in me as a subject teacher but most especially to my future learners, where everyone is opened and inspired to use the language orally and in written.	Allowing students to be communicative
R6	A standard of English following our own culture.	Use of PE
R7	I see it as a more conversational tool that greatly helps students in becoming communicative in the English language	Helping students to be communicative

Based on the statements above, all of the respondents see Philippine English in their class in the future as something that will help, encourage, and allow students to be communicative in the English language. Torres and Alieto (2019) analyzed the extent of acceptability of the lexical variances of Philippine English among pre-service teachers and found out that their preferred model is still the American English in classroom teaching. So far, Philippine English is showing some signs of acceptability in ESL classrooms which is a good indicator towards legitimacy of the language.

4.3 What is the best idea in the session that you plan to use?

Table 14. Teachers' Response on Question 4.3

RESPONDENTS	RESPONSES	CODE
R1	The intellectualization of the Philippine English as well as the approaches on how to use it effectively. Knowing the language and "diving" into its meanings will help you understand different perspectives of individuals.	Intellectualization of PE
R2	Correct stress used in every word.	Recognizing that English pronunciation varies
R3	Allow students to speak the language they're used to, and correct them little by little without hampering their participation and learning.	Allowing students to speak the English without being embarrassed
R4	"Teach English in a descriptive way not in a prescriptive way." The session was very engaging and interesting. Looking forward to another session like this in the future.	Teaching English in a descriptive way not in a prescriptive way.
R5	This session is very useful to us. The best idea in this session that I am planning to use is let the students speak and share their ideas and knowledge in front of the class and never correct them on the spot because it may lead them to a situation that they don't want to speak again. Most of my students before were like that. And so, this idea will help a lot.	Allowing students to speak the English without being embarrassed.
R6	Letting the students use their preferred English standard.	Allowing students to speak the English without being embarrassed.
R7	The idea that there are "World Englishes" and that we must embrace them is something that I would like my students to acknowledge and become aware of during our language classes. Also, English is not prescriptive, but descriptive. This is	Teaching English in a descriptive way not in a prescriptive way.

	something that I would always take note of when teaching.	
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From the above data, the respondents believe that Philippine English, if integrated with teaching the English subjects, will allow students to speak English without being embarrassed. Taking from what Barron (2009) has stated, that we need to trust our language instincts rather than copy what was thought to be a standard. We need to aim for a language which will allow us to express ourselves. Hence, teaching English must be in a descriptive way and not in a prescriptive way.

4 Conclusions

Public school teachers are not familiar with Philippine English and its lexical and grammatical features yet. They are still following what was normed to be standard English (American and British) until the researcher introduced it through a webinar. This further justifies the claim of Jenkins (2011) that most people have a notion that American English or those varieties that are in the inner circle is the only correct and acceptable variety Jenkins.

Surprisingly after the conduct of the webinar, teachers' perspectives on Philippine English changed. This result supports the study of Torres & Alietto (2019) which positions PE variety as an acceptable English variety among educators. It is concluded that teachers are open to incorporating the PE in their classes to further improve their students' confidence in learning the language. Furthermore, Borlongan (2016) stressed that there are signs of acceptance of an emerging local norm (PE) although there are those still linguistically conservative who resist accepting the variety. Finally, Crystal (2001) reinstated for a language to be intelligible and to be accepted as a standard variety of English, there is a need to maintain local identity. In this regard, introducing our language variety to public school teachers will be a good, if not a huge step, in spreading awareness and in campaigning PE.

5 Recommendations

Based on the findings and conclusions of the study, the following recommendations are offered:

1. Teachers should be provided with more seminars that will update them with the current status of Philippine English.
2. Teachers, especially those in basic education, should be encouraged to consider Philippine English in motivating students to be confident speakers in the English classes.
3. Public school administrators and English teachers should promote the acceptance of Philippine English in the academic context.
4. Future researchers should conduct other studies to search for other variables that are related to the present study.

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The Effects of Language Teaching Approaches in Enhancing the Reading Comprehension Skills

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Abstract. This study investigated the effect of language teaching approaches on the reading comprehension skills among Grade 11 students of a National High School in the Division of Cagayan de Oro City School Year 2017 – 2018. A quasi – experimental research design involving pretest and posttest was employed in this study with 76 student-participants; of which 38 were part of experimental group (taught using Task – Based Language Teaching Approach) and other 38 of control group (taught using Present – Practice – Produce Approach). Findings of the study revealed that: 1) The students from the Task – Based Language Teaching (TBLT) Approach group demonstrated maximum improvement in their reading comprehension skills in the literal, inferential and critical levels; 2) The reading comprehension skills of the students exposed to TBLT Approach significantly differs in the pretest and posttest while those who were exposed to Present – Practice – Produce (PPP) Approach showed significant differences in their pretest and posttest ratings in reading comprehension skills except in literal and critical levels; 3) There were significant differences in the mean increment of the two groups in their reading comprehension skills with the students exposed to TBLT Approach showing higher mean increment; 5) There were no significant differences in the score increment of the two groups in the Literal and Inferential level, however, in the specific components of the skills, only in the critical level they significantly differ with a higher increment in the TBLT Approach group. Generally, TBLT Approach positively enriched their learning experiences and helped students improved their reading comprehension skills. This research would provide information to English teachers to expose students to Task – Based Language Teaching Approach so that the students can take ownership and responsibility of their learning process and become independent learners.

Keywords: Reading Comprehension, Task-Based Language Teaching, Present–Practice – Produce Approach

1 Introduction

The issue of comprehension has been one of the major concerns of many language teachers and learners globally (Sadeghi, 2016). Many educators considered it as a skill that must be developed among students since reading comprehension is inseparable in all kinds of standardized tests. To read, one must comprehend what has been read; otherwise, there would be no purpose in reading.

Recognizing the aforesaid concern, comprehension is considered as one of the most important reading skills that students must acquire. Hence, students are able to master academic content, to read for pleasure and more likely to succeed in post-secondary goals when they have excellent reading comprehension level. Unfortunately, comprehension strategy skills are not innate skills among students; it must be self – taught or taught by someone else (Novotny, 2011). Reading comprehension, therefore, can be facilitated by providing students with ample opportunities to discuss reading texts through purposeful strategic conversations.

Evidently, the current curriculum framework includes English competencies which aim to foster holistically developed Filipino with 21st century skills so that Filipino graduates will be prepared for higher education, middle-level skills, employment, and entrepreneurship (Philippine EFA, 2015). However, the ongoing decline of students' English mastery / achievement level subjects in the National Achievement Test (NAT) continues to be one of the major concerns of the Department of Education nationwide. Data show that the English secondary proficiency level for SY 2012 - 2013 is 53.99 %, which is 21.01 percentage points away from the target MPS of Philippine EFA which is 75%. The data further unveil that the learner's insufficiency in reading skills particularly in comprehension skill caused the poor performance of the learners in NAT. It is important to note that if students plagued with poor reading comprehension, it may threaten the country's global competitiveness.

Recognizing the poor performance of students in reading comprehension in the Division of Cagayan de Oro, various methods of intervention were implemented such as the conduct of remedial reading, provision of various reading activities / materials and re – teaching the least mastered competencies. However, despite interventions students' performance in reading comprehension remains unimpressive.

Thus, this study is anchored on the assumption that these two language teaching approaches have a direct effect on reading comprehension skills of the students. The researcher believes that when students are engaged in meaningful and interactive reading tasks, they actively and socially construct or make meaning in the process, thus, their reading comprehension skills are enhanced. This study is based on TBLT approach, a student – centered approach which is supported by Piaget's Constructivism theory of learning and Vygotsky's Sociocultural theory particularly on leading the students to their Zone of Proximal Development (ZPD); and PPP approach, a teacher – centered approach which is supported by Behaviorism theory of learning.

Task – Based Language Teaching (TBLT) or Task – Based Instruction (TBI) (also known as task – based learning, task – based language learning) is a teaching - learning approach which focuses on classroom processes. It uses meaningful, inquiry – based, real world tasks and activities (Brown, 2007; Willis and Willis, 2007). It is strongly based on theory and on an increasing body of research; it is also an approach to teaching practice (Hismanoglu, 2011). TBLT relies on a myriad of learning theories, covering Piaget's cognitive theory of Constructivism and Vygotsky's Sociocultural Theory particularly on scaffolding, thereby leading the learners in their ZPD.

In recent TBLT studies, the ever – increasing importance of tasks and the prominent role they play in facilitating language learning have been taken into consideration (Willis and

Willis, 2007). TBLT stems directly from communicative language teaching focusing on meaningful language use and is largely socio – constructivist in nature (Branden, 2006).

TBLT has been empirically proven to improve students' reading comprehension. Mulyono (2008) found out that students get better achievement in reading comprehension when exposed to TBLT approach. This approach can facilitate the students learning by involving them actively during teaching and learning process. Moreover, Madhkan and Mousavi (2017) asserted that TBLT significantly gave positive effect on intermediate learners' reading comprehension performance compared to the traditional reading instruction. Consequently, learners were provided with better learning context through implementing tasks in the lesson and it is easy for the teachers to work on the factors facilitating the reading comprehension.

Present – Practice – Produce, on the other hand, is described as a teacher – centered approach because the entire sequence of classroom events is described from the teacher's perspective, thus, involves active teacher activity (Skehan and Scrivener, 1996 and cited in Larssen, 2011). Traditional approaches to language teaching like PPP Approach are based on a focus on grammar and series of activities that involves presentation and practice of new language item under controlled conditions, and production where learners try out the form in a more communicative context (Richards and Renandya, 2002). Dialogues and drill exercises form the basis of the PPP classroom activities (Richards and Rodgers, 2001; Nunan, 2004).

Present – Practice – Produce has a logic that is appealing to teachers and learners in that it reflects a notion of practice makes perfect, common in many skills; it allows the teacher to control the content and pace of the lesson (Rhalmi, 2014). Asian countries favored PPP Approach in language teaching and learning because of educational contexts, language proficiency, class sizes and learners are used to the style and teachers' classroom management point of view: teaching is simply following the textbook and denies differences among learners (Miyasako, 2015; Carless, 2009).

On the study conducted by Wijaya (2015), findings revealed that PPP approach was effective in teaching reading. In addition, all of the students were in fair level after they were exposed to PPP approach in their reading class. Indicators showed that there was an improvement in their reading skill: reading scores improved and mean scores increased in the posttest result. Additionally, it was asserted that using PPP approach made students became active participants in the class by sharing opinions and ideas and asking for clarifications which improved their motivation and their reading skill.

Several authors have studied and postulated the levels of comprehension according to their ideas. The labeling of reading comprehension level changes, but the concepts are quite the same. This includes three levels which are ordered by hierarchy from the least to the most complex level namely literal, inferential and critical comprehension. In this study, the researcher used the framework of Thomas Barrett's taxonomy of comprehension skills. Barrett has suggested the following three levels of taxonomy in reading comprehension which includes literal, inferential, and critical levels.

Reading comprehension on the literal level requires the reader to recall facts or identify details such as names, ideas, sequence, recognize, locate and others which are stated

explicitly. Inferential reading comprehension, on the other hand, refers to the ability of a reader to take in information that is inferred or implied within a text. It is more sophisticated than literal comprehension because it requires the orchestration and manipulation of information from the text as well as information that resides within the readers – their background knowledge. Finally, critical or evaluative reading comprehension, the third and the highest level, involves making critical judgments on the information of the text. It takes place when the reader evaluates the materials read, gives judgment or opinions on ideas read using the student's prior knowledge or background experiences, determine fact or opinion, or differentiate reality from fantasy and aware of the author's purpose (Jones, 2008). Moreover, in – depth analysis and critical thinking are necessary to make informed judgments and evaluations. Responses to inferential and critical – level questions significantly rely on the reader's own background, interest, and disposition (Rasinski & Brassell, 2008).

All three levels of reading comprehension are essential and need to be fostered. However, it has generally been the case that inferential and critical comprehension levels are not sufficiently addressed in many classrooms and reading programs (Rasinski & Brassell, 2008). These levels are not easily evaluated and do not lend themselves to the “teacher asks and student answers” type of comprehension discussions that follow many reading lessons. Nonetheless, a focus on inferential and critical comprehension should be given emphasis to nurture the higher level thinking skills of the students.

It is assumed that using language teaching approaches will facilitate and have a direct effect on reading comprehension skills of students. The researcher further assumed that when students are engaged in meaningful and interactive reading tasks, they actively and socially construct or make meaning in the process, thus, their reading comprehension skills are enhanced.

Thus, this study sought to determine the effect of Task – Based Language Teaching and Present – Practice – Produce Approach in enhancing the reading comprehension skills of the Grade Eleven students. To achieve the purpose, the following research questions were formulated:

1. How do the two groups of participants perform in reading comprehension test before and after interventions in terms of:
 - 1.1 Literal;
 - 1.2 Inferential; and,
 - 1.3 Critical skills?
2. How do the reading comprehension skills test of each group compare before and after the interventions?
3. Do the two groups significantly differ in their reading comprehension test score increment?
4. What are students' perceptions and learning experiences of the participants when exposed to Task – Based Language Teaching and Teacher-Directed approach?

2 Methods

2.1 Research Design

This present research employed the quasi – experimental method using pretest – posttest with control group design to investigate the effects of educational innovations (Duggard & Todman, 1995 cited by Lap & Trang, 2017). Quasi – experimental deals with comparison of two parallel groups exposed to an intervention of interest and effect on some outcomes from the observed subject (Harris, et al. 2006; Koepsell, 2005). It was utilized for the purpose of determining the effect of Task – Based language teaching (TBLT) and Present – Practice – Produce (PPP) approach on students' reading comprehension skills.

Since this study is mainly concerned with the influence of Task – Based Language Teaching and Present – Practice – Produce Approaches on the reading comprehension skills of senior high school students, the researcher employed the use of quasi – experimental method as the most appropriate method used in the study.

2.2 Research Participants

A total of seventy – six (76) Grade 11 students who were heterogeneously distributed were randomly chosen as participants of the study. Grade 11 section A with 38 students were exposed to the Task – Based Language Teaching, and the Grade 11 section B experienced the teacher – directed approach in which Present – Practice – Produce (PPP) approach was employed. The two sections were from a public school in the Division of Cagayan de Oro City for the academic year 2017 – 2018. In addition, the two sections were chosen as participants of the study since they were all under the Reading and Writing class.

2.3 Research Instruments

There were two (2) research instruments used in gathering the data. The first instrument sought to determine the students' reading comprehension level. The reading comprehension test was composed of 41 items covering the literal comprehension level (noting details and identifying the main ideas and supporting details and sequencing of events), inferential comprehension level (making inferences and predicting outcomes), and critical comprehension level (distinguishing fact from opinion and determining the author's purpose). The questions on the test were taken from the National Achievement Test Reviewer DepEd Region X Practice Sheets.

The second research instrument used in this study was a modified questionnaire on students' perception when exposed the TBLT and PPP approaches which was composed of twelve questions. These questions entailed the learning experiences in English class where TBLT and PPP were used in most of reading activities and tasks and ascertained how it helped students in answering the reading comprehension test. The questionnaire was adapted from Ismaili (2013).

2.4 Data Gathering Procedure

The researcher sought for the approval of the principal to conduct the study in all participating sections and student – participants signed the consent form. In the conduct of this study, the purpose of the research was introduced to the students before

administering the Reading Comprehension Test to assess the reading comprehension skills performance. Then, the groups were exposed to different instructional conditions. The two approaches as interventions in developing the students' reading comprehension performance were implemented for six (weeks).

The 38 students were exposed to Task – Based Language Teaching approach wherein students underwent varied tasks in the three stages: Pre Task Phase, Task Cycle and Language Focus. On the other hand, students who were exposed to Present – Practice – Produce approach experienced the instructional role of the teacher within the three stages: presentation, practice and production. Students from both approaches actively – participated and engaged themselves in different tasks and activities. Thereafter, the students from the two groups took the posttest to see if there was an improvement in their reading comprehension performance.

Furthermore, the researcher also conducted a survey on students' perception and learning experiences when exposed to TBLT and PPP approach.

2.5 Statistical Treatment of the Data

In treating the data, descriptive statistics such as percentage, mean, frequency distribution, and standard deviation was used. T-test for paired samples to determine if there was a significant difference in the participants' reading comprehension performance before and after the interventions and for independent samples to determine if there was a significant difference in the increment of the two groups of students' reading comprehension performance was also used.

3 Results and Discussion

- 1. How do the two groups of participants perform in reading comprehension test before and after interventions in terms of:
 - 1.1 Literal;
 - 1.2 Inferential; and,
 - 1.3 Critical skills?

Table 1. Summary Table of the Participants' Reading Comprehension Skills Before and After the Interventions

Reading Comprehension Skills	Items	TASK-BASED APPROACH		LANGUAGE		PRESENT-PRACTICE-PRODUCE (PPP) APPROACH			
		Pretest M	Int.	Posttest M	Int.	Pretest M	Int.	Posttest M	Int.
Literal Level	13	7.34	Average Mastery	9.05	Average Mastery	5.55	Low Mastery	6.32	Low Mastery

Inferential Level	14	6.39	Low Mastery	7.95	Average Mastery	4.79	Low Mastery	6.21	Low Mastery
Critical Level	14	5.82	Low Mastery	6.95	Average Mastery	5.37	Low Mastery	5.13	Low Mastery
Overall	41	6.52	Average Mastery	7.98	Average Mastery	5.24	Low Mastery	5.89	Low Mastery

Table 1 presents the summary of the reading comprehension test of the Senior High School students in both Task – Based Language Teaching and Present – Practice – Produce Groups. It can be gleaned that in the Literal level, students in the TBLT group achieved the Average Mastery (M=9.05) during the posttest. Moreover, students remarkably improved from Low Mastery (M=6.39) to Average Mastery (M=7.95) in the Inferential level. Likewise, in the Critical level, students attained the Low Mastery (M=5.82) in the pretest and Average Mastery (M=6.95) in the posttest.

Meanwhile, in the PPP group, students had similarly improved. Nevertheless, three levels of reading comprehension skills still remained in Low Mastery level both pretest (M=5.24) and posttest (M=5.89).

Based on the aforesaid data, both were effective approaches in enhancing students reading comprehension skills. However, it is in the TBLT approach group that showed higher increase in all levels of reading comprehension as compared to the Present – Practice – Produce approach. This implies that using language teaching approaches will facilitate and have a direct effect on students' reading comprehension skills. However, those who are exposed to TBLT get better achievement in reading comprehension.

- How do the reading comprehension skills test of each group compare before and after the interventions?

H₀₁. There is no significant difference in the students' reading comprehension test scores before and after the intervention.

Table 2. Result of the Test of Difference in the Participants' Reading Comprehension Skills Test Before and After the Interventions

Reading Comprehension Skills	TASK-BASED APPROACH		LANGUAGE		PRESENT-PRACTICE-PRODUCE (PPP) APPROACH			
	Pre Test	Post Test	T	p	Pre Test	Post Test	t	p
Literal Level	7.34	9.05	3.88**	.000	5.55	6.32	1.61	.116
Inferential Level	6.39	7.95	5.73**	.000	4.79	6.21	3.20**	.003
Critical Level	5.82	6.95	2.87**	.007	5.37	5.13	.627	.535
Overall	6.52	7.98	6.70**	.000	5.24	5.89	3.05**	.004

** significant at 0.01 level

Table 2 presents the results of the test of difference between the pretest and the post test of the participants' Reading Comprehension skills. The data revealed that the students' reading comprehension skills significantly differ in their overall performance ($t=6.70$, $p=.000$) after exposure to the TBLT approach, with their post test scores showing higher means. Thus, in this case, the null hypothesis can be rejected. Evidence shows that the task-based approach has helped develop the students' reading comprehension skill in terms of Literal ($t=3.88$, $p=.000$), Inferential ($t=5.73$, $p=.000$) and Critical ($t=2.87$, $p=.007$) levels. In other words, TBLT approach helped students improved the literal, inferential and critical reading comprehension skills. Moreover, findings implied that when students are involved in the process and assigning them with real – world tasks influences the reading comprehension positively. These results can be attributed to the fact that TBLT approach is based on Constructivist pedagogy and principles that respond to the diverse needs of language learners.

Similarly, students who were exposed to Present – Practice – Produce Approach has significantly improved in their inferential skills ($t=3.20$, $p=.003$). Moreover, the data show that there was no significant improvement on students' reading comprehension skills specifically on the literal ($t=1.61$, $p=.116$) and critical ($t=.627$, $p=.535$) levels. However, findings from the data reveal that the students' reading comprehension skills significantly differ in their overall performance ($t=3.05$, $p=.004$). Thus, in this case, the null hypothesis can be rejected.

Both TBLT and PPP approaches improved students' reading comprehension skills. Findings were similar to Kolaei, Yarahmadi & Maghsoudi (2013) which claimed that both task – based approach and traditional method used in their study promoted the learners' reading comprehension. However, students' reading comprehension skills in both approaches significantly differ in the overall performance.

3. Do the two groups significantly differ in their reading comprehension test score increment?

H_{02} . There is no significant difference in the students' reading comprehension test score increment.

Table 3. Result of the Test of Difference in Participants' Reading Comprehension Test Score Increment in the Two Groups

Reading Comprehension Skills	TASK-BASED LANGUAGE APPROACH		PRESENT-PRACTICE-PRODUCE (PPP) APPROACH		t	p
	M	SD	M	SD		
Literal Level	1.71	2.72	.76	2.93	1.46	.148
Inferential Level	1.55	1.67	1.42	2.74	.253	.801
Critical Level	1.13	2.43	.24	2.33	2.51*	.014
Overall	4.39	4.04	1.95	3.93	2.68**	.009

** significant at 0.01 level

*significant at .05 level

Table 3 presents the result of the test of difference between the two groups of students' reading comprehension test score increments. Data show that the two groups significantly differ in their overall reading comprehension ($t=2.68$, $p=.009$). Thus, in this case, the null hypothesis is rejected. Evidence shows that TBLT has helped the students more in enhancing their reading comprehension skills than the Present – Practice – Produce Approach. Results implied that employing interactive tasks in English reading classes can enhance the students' reading comprehension skills. Teachers must take into consideration of dynamic and communicative activities like Task – Based Language Teaching which can facilitate and enhance the reading comprehension skills of the students.

4. What are students' perceptions and learning experiences when exposed to Task – based language teaching and teacher-directed Present, Practice, Produce (PPP) approach?

Generally, students agreed that the TBLT and PPP approaches enriched their learning experiences and helped them improve their reading comprehension skills.

4 Conclusion and Recommendations

The student – participants in this study are generally wanting in their reading comprehension skills in terms of Literal, Inferential and Critical levels. Such phenomenon confirms the claim about the ongoing decline of students' achievement particularly on the reading comprehension skills.

Evidently, the present study attempted to explain that the use of Task – Based Language Teaching and Present – Practice – Produce approaches helped improve the students' reading comprehension skills; however, TBLT approach showed higher impact to the inferential and critical level of reading comprehension skill, thereby improving the student's low proficiency level to average mastery level. Hence, the more the students are exposed to interactive task-based learning activities which ignites and processes higher order thinking skills, the better they performed in inferential and critical level of comprehension skill.

In addition, the two groups showed no significant differences in the score increment in the literal and inferential level; however, in the critical level, they significantly differ with a higher increment in the Task – Based Language Teaching approach group than in the Present – Practice – Produce approach group. Thus, student's critical level of reading comprehension skill could be better improved when they are exposed to TBLT approach. As a whole, it can be inferred that students' reading comprehension skills can be enhanced when they are frequently exposed to TBLT and PPP approaches.

In the light of the findings and conclusions in the study, the researcher presents the following recommendations 1) For school administrators to include TBLT and PPP approaches training as part of faculty development training; create classroom monitoring committee that will ensure a closer follow up of the effective implementation of the approaches in this research; 2) For English teachers that they may apply the design of TBLT and PPP approaches in their classes; and expose students to TBLT and PPP approaches so that the students can take ownership and responsibility of their learning

process and become independent learners; and 3) Future researchers to explore TBLT and PPP approaches strategies in their research and its applicability in the new normal; and increase the time duration in the implementation of interventions to better determine the effectiveness of TBLT and PPP approaches.

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The Effectiveness of an Online Task-Based Writing Skills Development Program in the Basic Education

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Abstract. The COVID-19 pandemic brought about a massive paradigm shift in the education sector. With the need to effectively integrate ICT in the teaching of language skills due to the sudden transition to online learning, this action research investigates the effectiveness of the use of an online task-based language learning (TBLL) environment in improving learners' writing skills. A Writing Skills Development Program anchored on the principles of Task-Based Language Teaching (TBLT) was launched, which uses communicative tasks as the core unit of planning and instruction in language teaching (Richard & Rodgers, 2001; Brown, 2001). A needs analysis was first conducted through a survey questionnaire adapted from Chou (1998) and Ibnian (2017). Instructional materials, assessments, and teaching strategies were developed using the results of the needs analysis and TBLT's standards. Using a quantitative research design, data were collected from students' pre and post-test results. A random sample size of 125 students from Grade 6 and 130 students from Grade 7 was selected from a total population of 179 and 194 respectively. Results show that the use of TBLT approach in the design and development of the program resulted to a significant increase in the writing performance of the students.

Keywords: Teaching Writing, Task-Based Language Teaching (TBLT), Basic Education, online learning

1. Introduction

Writing is considered to be the most difficult among the language macroskills; hence, may be usually perceived by learners as a dreading activity (Nepomuceno, 2011). This may be due to every learner's fear of being criticized for their errors which may lead to pressure of wanting to write perfectly from the start of the writing process. Moreover, Richards and Renandya (2002) explain that such difficulty is not merely ascribed to one's ability to generate and organize ideas but also to translate their ideas into "readable texts". Such difficulty appears to be a prevailing concern to many Filipino learners especially in the basic education.

In fact, in the 2019 Southeast Asia Primary Learning Metrics (SEA-PLM), a study conducted by the Southeast Asian Ministers of Education Organization and the United Nations Children's Fund (UNICEF), results show that only 1% of Filipino Grade 5 learner participants achieved higher levels of proficiency in writing, while 45% of them were in the lowest bracket with 'limited ability to present ideas in writing'. Such data shows how Filipino learners are losing ground to their counterparts in the Southeast Asian region in terms of

their writing competence. This becomes an even bigger concern now that teaching and learning language has shifted to an online environment. This, and the rise of technology, have changed the nature of writing and even influenced how learners acquire and practice this important skill.

The role that is attributed to writing in determining one's success not only in school, but even in the workplace and personal dealings in life makes this a crucial issue that needs an earnest solution. These are the grounds that led the researcher to design and launch a Writing Skills Development Program (WSDP) intended for sixth and seventh graders which aims to assist learners in improving their skills in writing.

1.1 Background

The study was conducted in a private Catholic educational institution in Taytay, Rizal with an integrated basic education department which adopted a combination of online and modular distance learning approach for the academic year 2020-2021. Students meet their teachers online for their synchronous sessions where they listen to lesson discussions and participate in online activities that also serve as their formative and summative assessments. Even when classes were conducted face-to-face, writing has always been perceived as a complex skill to be taught and learned. However, more issues arise when the teaching and learning of English had to suddenly transfer in an online environment. Problems such as learners' frequent use of informal language and abbreviations, neglect of the proper use of punctuation, capitalization and spelling, inability to follow structure and observe coherence in presenting ideas, and the temptation of plagiarizing works and ideas available on the Internet are some of the issues faced by the English teachers when they give writing tasks to their learners in an online set-up.

1.2 Literature Review

Task-Based Language Teaching (TBLT)

TBLT, proposes that grammar forms or language skills must not be taught, learned, and assessed in isolation; rather, must be practiced within a meaningful context where learners will be given opportunities to negotiate meaning and engage in authentic, pragmatic and contextual production of language (Doughty & Long, 2003). According to Long (2015), a task-based course begins by identifying learners' needs in relation to language learning. The results of the needs analysis will serve as the basis for the designing of pedagogical tasks. Then, materials and teaching methodologies are planned and designed as building blocks leading learners to the attainment of the tasks. Assessments following this framework must be performance-based and criterion-referenced, targeting the skills that need to be learned or improved as identified in the results of the needs analysis. Moreover, this approach to teaching language skills highlights the importance of social interaction and how this involves meaning negotiation, communication strategies, which all result to effective communication (Ellis, 2003).

Pedagogical tasks play a crucial role in the success of a task-based course or learning program. In order for an activity to be considered a task, it must adhere to TBLT's main principles and standards namely: (a) meaning is primary; (b) lessons are situated in a real-life contexts; (c) there must be a communicative 'gap' to be solved; and (d) assessment is focused on the attainment of the communicative goal (Paran, Révész and Domingo, 2016). TBLT, as a meaning-centered approach to teaching language, also emphasizes the importance of gradual release of responsibility and building background knowledge. Pearson & Gallagher's (1983) gradual release of responsibility model argues that learning is a social process; hence, teachers need to scaffold instruction to eventually enable learners to read and write independently. Therefore, a TBLT course must provide learners with opportunities to engage in the learning process by performing tasks independently and collaboratively.

1.3 Research Objectives and Questions

The researcher believes that given the challenges brought by the sudden change in the learning set-up of Filipino learners, language teachers should explore various teaching methods and approaches that would develop learners' positive attitude towards writing as a learning activity and further enhance their writing skills in general. Hence, this study aims to examine the effectiveness of an online task-based language learning environment in improving learners' writing skills. This study aims to seek answers to the following questions: (1) What are the learners' perceived difficulties in writing? (2) Is an online task-based language learning environment effective in improving learners' writing skills?

2. Methodology

2.1 Participants

The participants of this study are the sixth and seventh graders of a private Catholic school in Taytay. The total population of the Grade 6 classes is 179 while the Grade 7 classes have a total population of 194. Using the sample size formula with a 95% confidence level and 5% margin of error, a sample size of 125 for Grade 6 and 130 for Grade 7 was set. Given that both grade levels have 5 sections each, the researcher randomly selected 25 participants for each Grade 6 class and 26 participants for each Grade 7 class.

2.2 Procedures

The first step to developing a writing program is to identify the learners' context of learning (Gepila, 2017). Hence, the study began by developing a needs analysis survey tool which was adapted from Chou (1998) and Ibnian (2017) in the needs analysis they have conducted for their writing courses. The adapted tool was reviewed by two research consultants and was then approved by the school administration for dissemination. A data privacy statement and consent form were included in the first section of the electronic survey form to assure the participants that their identities and responses will be kept confidential and will only be used for the purpose of the study. Given that the participants of the study are minors, the parents were asked to accomplish the form with

their child. The objectives and the procedures of the study were briefly explained in the letter sent to them. After gathering and analyzing the results from the survey questionnaire, the materials were then designed to address the prevalent needs and difficulties of learners in writing. The results also served as the basis for the creation of pedagogical tasks and teaching strategies to be utilized in their synchronous sessions. The pre-test and post-test quantitative data were collected and analyzed. The program lasted for 2 months, covering a quarter of the academic year.

2.3 Research Instrument

This study examines the effectiveness of an online task-based language learning environment in improving learners' writing skills. There are 2 main instruments utilized in this study, namely, the needs analysis survey questionnaire and the writing skills development program learning module.

The needs analysis survey questionnaire consists of parts: (a) Writing Difficulties; and (b) Learning Preference. The first part used a 3-point Likert scale which allows the researchers to identify the prevalent difficulties of learners in terms of writing. On the other hand, the second part enabled the researchers to determine students' predominant learning style and preference when learning or accomplishing writing tasks.

The learning module that was used for the program consists of 3 main components: (a) pre-test; (b) lessons; and (c) post-test. The lessons are structured according to TBLT's format: (a) pre-writing (unlocking of difficulties and activating prior knowledge: Mood Booster); (b) during-writing (discussion of the lesson/skill – modeling: Writing Tab); and (c) post-writing (pedagogical task/s: Skill Plug-ins). The modules covered the writing difficulties that received more than 50% Agree responses from the survey. The skills covered in the Grade 6 module are Generating Ideas through Outlines & Graphic Organizers, Writing Each Part of a Paragraph (Topic Sentence, Supporting Details & Concluding Sentence), and Cohesion (Transitional Devices). On the other hand, the Grade 7 module covered Generating & Summarizing Ideas through Graphic Organizers, Vocabulary Enrichment, Classification of Text Types and Features of Academic Writing. The pedagogical tasks given to the students include writing an advocacy plan, making a timeline chart, designing a movie poster, jigsaw activities, writing an editorial, composing a Facebook announcement, and writing an outline.

2.4 Data Analysis

The results of the needs analysis survey questionnaire were analyzed by calculating the percentage of responses for each item to determine the most prevalent writing difficulties experienced by the participants as well as their most preferred learning style or strategy when dealing with writing tasks. Moreover, in evaluative research such as this, a directional hypothesis is established, hence, two-tailed t test is used to analyze the pre-test and post-test results (Allen, 2017).

3. Findings & Discussion

3.1 Learners' Perceived Difficulties in Writing and Preferred Learning Style

The most prevalent writing difficulties for the Grade 6 participants are generating ideas (56%), writing the different parts of a paragraph (topic sentence - 61%; supporting details (57%); and concluding sentence – 53%), using appropriate transition words (54%), expressing ideas logically and coherently (52%), and following the correct sentence/paragraph structure (51%). On the other hand, the most prevalent writing difficulties of the Grade 7 participants are generating ideas (58%), following the correct sentence/paragraph structure (68%), and using correct and appropriate vocabulary (60%).

Table 1. Writing Difficulties of Learners

Writing Difficulties	Disagree		Not sure		Agree	
	Gr. 6	Gr. 7	Gr. 6	Gr. 7	Gr. 6	Gr. 7
A. Generating ideas	27%	20%	17%	22%	56%	58%
B. Choosing an appropriate title	28%	34%	31%	31%	41%	35%
C. Writing a topic sentence	18%	38%	21%	27%	61%	35%
D. Giving enough supporting details	30%	27%	13%	48%	57%	25%
E. Writing a logical concluding sentence	19%	32%	28%	43%	53%	25%
F. Using appropriate transition words (e.g. 'moreover')	24%	26%	22%	40%	54%	34%
G. Expressing my ideas logically and coherently	24%	18%	24%	42%	52%	40%
H. Following the correct sentence and paragraph structure	26%	12%	23%	20%	51%	68%
I. Observing correct use of grammar	47%	39%	23%	31%	30%	30%
J. Following correct use of capitalization and punctuation marks	57%	57%	20%	22%	23%	21%
K. Using correct and appropriate vocabulary	38%	19%	33%	21%	29%	60%
L. Avoiding plagiarism	47%	37%	31%	47%	22%	16%
M. Completing the writing task in the given time	35%	30%	40%	43%	25%	27%

Furthermore, the results of the survey also revealed that both Grades 6 and 7 participants prefer to get feedback and assistance from their teachers (60%; 70%), get ideas from resources available on the Internet (67%; 79%) and read and review good writing samples before they proceed to the actual writing task (66%; 72%). Moreover, both Grades 6 (55%) and 7 (65%) participants prefer to work individually in completing writing tasks but the former favors working with a partner (64%) in idea generation activities, whereas the latter prefers working in groups with 3-6 members each (58%).

3.2 Effectiveness of the Online Task-Based Writing Skills Development Program

After tallying the results of the pretest and post-test of the participants, a significant improvement in their writing skills can be seen. There has been a 13.8% increase in the

post-test results of the Grade 6 participants while there has been a 13.7% increase in the post-test results of the Grade 7 participants. This reveals that the use of the TBLT approach in teaching methods and development of materials used for the writing skills development program enabled learners to improve their capacity to write in a more structured and cohesive manner.

Table 2. t-Test Analysis of the Pre-test and Post-test Results

	Post-Test		Pre-Test	
	Grade 6	Grade 7	Grade 6	Grade 7
Mean	76.45333333	72.16284987	67.17333333	63.48600509
Standard Deviation	17.85165876	18.62896221	20.23077432	20.87350013
df	124	129		
t Stat	15.30794788	12.36395889		
P(T<=t) two-tail	2.35027E-30	1.06766E-23		

4. Conclusion

Writing continues to play a crucial role not only in the realms of proficiency assessment within the provisions of the school, but also in major career-related examinations and the demands of the workplace. Therefore, further examination of various approaches and strategies must be continued in order to find and offer better ways that our learners of today can enrich their skills in writing. The results of this study may be used as a basis for other schools in developing their own intervention programs which may aid learners in the basic education to develop their writing skills and build a more positive attitude towards writing. It is also recommended that apart from the utilization of quantitative data, the online task-based writing skills development program may be further evaluated using a qualitative approach by collecting narratives from the participants in order to further emphasize how writing is not merely a developmental process, but also as a reflective activity.

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The Use of Information Gap Tasks in Enhancing the Public Speaking Skills of ESL Learners

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Abstract

This research deals with the use of information gap tasks (IGT) in three different types of speech, i.e., impromptu speech, informative speech, and persuasive speech in order to improve the speaking skills of Oral Communication in Context (OCC) learners. The modules are designed with the Online Distance Learning (ODL) principles as a means of catering to the education of ESL learners in a pandemic situation. The research questions focus on the relationship between IGT as a speaking strategy and IGT in communication. It aims to establish whether the impact of the tasks influences the oral development of the learners. The theoretical framework is based on Lev Vygotsky's Sociocultural Theory and Zone of Proximal Development as it is associated with the ability of the learners to progress with the surrounding elements of oral communication. The lessons in the modules involve tasks that require interaction between the learners while the assessments demand the application of the types of speech to aid learners in improving their public speaking skills.

Keywords: Speaking, Information Gap Tasks, Oral Communication in Context, Online Distance Learning, sociocultural theory, zone of proximal development, ESL learners

1 Introduction

Speaking is accomplished as a means of imparting information. It is a significant skill that is taught at an early stage to establish language acquisition. It is important for the child to undergo language development as this influences the manner and depth of their interaction with others (Brannagan, 2017). The process of learning speaking creates a variety of opportunities for the learner to adapt to the target language. This allows them to construct meaning behind words and organize their thoughts into a sentence. Bygate (1987) claimed:

Speaking is the vehicle par excellence of social solidarity, of social ranking, of professional advancement and of business. It is also the medium through which much language is learned, and which for many is particularly conducive for learning. Perhaps, then, the teaching of speaking merits more thought. (p.1)

Similarly, public speaking is a task that covers every aspect of oral communication. O'Hair and Wiemann (2012) emphasized public speaking as a cooperation between a speaker who carries an objective, an audience that pays attention to the speaker, and a message that contains an intention, making it an essential display of communication. It functions as a tool for learners to recognize the purpose behind a speech. It also demands the bond between the speaker and the listener, given that the transmission of knowledge will transpire.

There are several reasons behind the fear of speakers when it comes to public speaking but there is one element that is intrinsic for everyone who dislikes delivering a message in front of an audience. Krashen (1982) deduces that one of the several implications that affect the learners' speaking capabilities are affective nuances. Particularly, Krashen expounds that there are three complicating factors that several scholars have also ascertained, namely, incitement, self-confidence, and apprehension, which also leads to the hindrance of second language learning or acquisition. In addition to affective implications, Brown (2000) asserts that these variables can often lead the speakers to provocations, particularly when speaking a foreign language. Primarily, these elements comprise sensibilities, self-regard, personal affinities, a frame of mind, and inducements. Hence, factors that are not academically inclined but are more predisposed toward confidential or distinctive variables which correspond to the circumstances that the speaker undergoes.

To address the needs in developing speaking skills of language learners, there have been numerous strategies identified that could help such needs by the learners. One of which is the use of information gaps. Information gap tasks (IGT) involve task-based learning wherein the learners are able to use the language in an authentic setting. Brown (2004) emphasized:

Information-gap activities include various techniques in which the objective is to convey or to request information. The two focal characteristics of information-gap techniques are (a) their primary attention to information and not to language forms and (b) the necessity of communicative interaction in order to reach the objective. (p. 185)

This suggests that the information gap is materialized when a learner has an information that another learner needs. Interaction is required between the learners in order to exchange information— allowing them to bridge the gap. Kay (2008) also contributed that:

The information gap is a very useful tool for teachers and speaking activities should generally have a gap. There are different types of gaps that can be used. If these activities can be personalized – by making the topic something real and relevant to the students then you are helping the students communicate in a very realistic way. (p. 1)

With task-based learning, IGT may promote learners in discovering their own knowledge and developing their public speaking skills through authentic interaction.

1.1 Review of Related Literature

Information gap tasks elicit communication between the learners which increases their ability to apply their knowledge into practice. Given that information gap tasks are generally done by pairs or groups, the learners will be able to establish cooperative learning with their fellow learners as they accomplish the task at hand. The learners are

encouraged to communicate given that they recognize the reason behind their interaction. Harmer (1983) contributed that an information gap takes place when two speakers own information that the other does not have and that in order to fill the gap and complete the whole picture, they are prompted to share the information. While this may increase their awareness in comprehending the objective behind their task, this may also promote understanding for the purpose of learning how to effectively communicate. In the meta-analysis of Johnson, Johnson, and Smith (2013) over 168 studies of undergraduate students, they concluded that learners subjected to collaborative tasks had greater knowledge acquisition, retention of material, and higher-order problem solving and reasoning abilities compared with learners in an individual task.

Information gap tasks focus on authentic learning. While it centers on communication, this prioritizes meaningful interaction between the learners. They are urged to build the reason behind their communication. Furthermore, Herdawan (2015) asserts that group activities not only expose the learners to the natural communication information gap tasks provide but also the confidence that they cannot fabricate during individual speaking activities since they share similar complications that their peers also undergo during a presentation. Under constant pressure, the learners are also urged into elaborating terminologies that the audience must comprehend only if the presenters are able to construct their utterances accordingly to the level of comprehension of the audience which is considered a valuable impact that information gap tasks offer. Since these communicative tasks are more natural, the learners will have the opportunity to focus on the meaning of the language rather than its structure.

In addition, several studies have identified similar findings regarding the significance of IGT, i.e., the learners exhibiting enhanced speaking fluency, improved English speaking skills such as their grammar, vocabulary, pronunciation, fluency, and comprehension, and heightened emotional filters that indicate the efficacy of IGT (Namaziandost et. al, 2019; Ortiz-Neira, 2019; Fatrina et.al, 2014; Xiaoqing, 1997; Irona & Ratmanida, 2018). Based on their studies, it is believed that it is essential for the learners to have involvement in what they are learning in order for them to acquire skills in the target language effectively. In particular, this involvement is the engagement between pairs or groups of learners exchanging information according to the mechanics of the IGT given.

1.2 Research Gap

In investigating the recommendations of the previous studies, this research paper affirms the necessary intervention to improve the public speaking skills of ESL learners. Thus, the objective of this study is to design modules for oral communication that will enhance learners' public speaking skills through the application IGT. The IGT will be in accordance with the objectives of the lesson. Furthermore, the implementation of task-based learning will be accompanied by Online Distance Learning (ODL) principles to cater to the current needs of the learners. It is believed that through this study, the nature of task-based learning via IGT will be emphasized as an effective technique in online teaching-learning.

Each study highlighted that the use of information gap activities has been beneficial in enhancing English speaking skills given that the learners were provided with more

opportunities to practice the language. For additional research, the majority of the studies suggested (1) To study the information gap technique extensively in an effort to investigate its implications, (2) To use a variety of engaging topics in order to recognize the technique's strengths and weaknesses, (3) To learn more about task-based learning, (4) To methodically plan the timeline of the action research, and (5) To conduct similar studies with the use of information gap activities in enhancing other macro skills besides speaking. Thus, in this action research, the gap that has to be attained is the application of IGT to a series of activities that would train the learners' speaking skills as they deal with different types of public speaking. Since the modules will be completed online with the ODL principles, the learners are provided with tools that will give them the opportunity to actively participate in the tasks. The communicative aspect of information gap tasks may deepen their understanding of the significance of communication. Thus, through the application of various IGT in the modules, development in their public speaking skills may occur.

1.3 The Objectives of the Module

The modules are divided into three types of public speaking, i.e., impromptu speech, informative speech, and persuasive speech. Each module will involve the discussion of the various types of speeches and their components along with different requirements that may lead the learners toward further understanding of the lessons. In addition, the modules are intended to cater to online learning given that the tasks and assessments can be accomplished both synchronously and asynchronously. The principles of ODL will be relevant for this study with the condition that the process of learning speaking will be attributed to the use of technology. The principles of ODL suit IGT as it allows learners to perform the guided tasks individually, by pairs, or by groups through multimedia tools and applications.

1.4 Theoretical Framework

The creation of the modules is anchored in Vygotsky's Zone Proximal Development (ZPD). The theory posits that through interaction, the speaker is given the opportunity to be able to determine and comprehend surrounding intakes to speaking or interacting since it is the primary medium of learners in order for the progression of learning to take place. Hence, Vygotsky's (1978) theory proposes that the advancement of learning will not take place without the supplement of the learners' surrounding discourse. Mediators such as educators and experienced peers will serve as the scaffolding as they progress through the learning process. In this manner, learners transition from being dependent on their environment and mediators to independent after they receive adequate foundational or supplementary knowledge.

1.5 Research Questions

Guided by Vygotsky's Sociocultural Theory and Zone of Proximal Development, this study aims to answer the following research questions:

1. How do information gap tasks improve the public speaking skills of the learners?
2. In what ways do information gap tasks offer adequate practice for learners to develop their communication skills?

2 Methodology

This segment of the paper delivers the methodology of the study which involves the procedures on how the learners will proceed with the modules. This will assist the learners in recognizing the tools that will be used to enhance their public speaking skills.

2.1 Procedures of the Module

In preparation for the module, the learners will be requested to inquire into IGT. The awareness of the technique will aid them in recognizing its functions and procedures. An article on IGT will be provided for the learners to explore. They will be introduced to the concept of task-based learning and how it will be beneficial to them and the development of their speaking skills particularly in public speaking. The learners will be required to use their Google accounts to serve as their means of completing tasks and compiling output. They are instructed to create a Google Drive which would contain all their individual, pair, and group outputs. This will serve as documentation of their submissions so that they can access and organize their data. A number of tasks will require them to record their task with their pair or group. The purpose of this is for them to be able to conduct self-assessment considering that this will enable them to identify their issues in speaking. Through recording their sessions, they would be able to monitor their development and recognize techniques that will allow them to practice the target language more. Moreover, each lesson in the module will consist of an instruction that will assist them in comprehending the topic and carrying out the tasks. Guidelines for the tasks will be provided in order for them to be advised of the proper execution.

3 Modules

In this section, an explanation of Module 1 Lesson 1 will be presented. This will involve the module topic, objectives, materials, assessment, recap, rubric, and lesson plan. This sample module serves as the framework for the following modules.

3.1 Module Learning Objectives

The modules center on three different types of speech, namely, impromptu speech, informative speech, and persuasive speech. The objectives for each lesson specifically cater to the aim of the study. For each lesson, either the activities or assessments make use of the information gap task.

Module 1: Introduction to Impromptu Speech Objectives:

1. Identify the basic concepts of impromptu speech
2. Relate the influence of impromptu speech on oral communication
3. Make use of the various strategies and techniques of impromptu speech
4. Accomplish the information gap tasks
5. Produce an impromptu speech through the assessments

3.2 Sample Module

Module topic and lesson objectives

The first module is entitled "Introduction to Impromptu Speech." The first lesson caters to the basic concepts of impromptu speech. The purpose of the first lesson "Basics of

Impromptu Speech" is to serve as the foundation of the learners in impromptu speaking, hence, the objectives are to define the meaning of an impromptu speech, analyze how an impromptu speech is accomplished by listing the speaker's verbal and nonverbal language in the provided video, identify the benefits, significance, and application of impromptu speeches through a pair discussion, participate in the "Connect the Words" IGT, and watch videos of speakers doing impromptu speeches.

Asynchronous learning materials

The asynchronous learning materials in Lesson 1 are placed on the demonstrate and deepen segment of Module 1. These are example stories of the Connect the Words IGT and three example videos of impromptu speeches. The purpose of the story will serve as a guide for the learners on how to accomplish the task while the video will assist the learners to recognize how to present an impromptu speech effectively.

Recap

The recap of Module 1 is situated in the "deepen" segment of Lesson

1. The video materials that are provided aim to facilitate further learning by showing the application of the concepts that the learners have learned throughout the lessons. This will be distributed to their asynchronous session given that they have prior knowledge and experiences that are connected to these videos– allowing them to broaden their understanding of the lessons.

Assessment

In Lesson 1, the assessment will be accomplished along with the IGT. It will center on the ability of the learners to connect the words that they will randomly receive. The connection for these words is not intended to have a right or wrong way of correspondence. It is up to the learners how they will form a connection between the two words as long as it is relevant. This will demonstrate whether they can produce a creative yet reasonable story on the spot.

Rubric

An oral discussion rubric will be used to grade the discussion segments in all the lessons. The rubric for the Connect the Words IGT-Assessment in Lesson 1 will focus on grading the learners according to the connection of words, comprehensibility, fluency, and language control. The maximum number of points for this IGT rubric is 20. The maximum number of points for this IGT rubric is 50.

Lesson plans

The lesson plans are designed for the use of the teacher in order to provide a guide to the module lessons. It consists of the topic, subject, and grade level of the learners, lesson objectives, materials, lesson summary, lesson proper, and rubric(s). The lesson proper is divided into four sections, i.e., discover, discuss, demonstrate, and deepen in order to signify the course of the module.

3.2 Principles of the Module

The modules aim to increase the ability of the learners to access knowledge and remove barriers that hinder their development. Under this category, the first ODL principle from

Saide (n.d) is “learners are provided with opportunities and capacity for lifelong learning” (para. 3). The lessons in the modules are centered on different types of speech that assist the learners in recognizing how speaking can be used in various situations. Correspondingly, the tasks adhere to a task-based approach—the learners will be given the circumstances to build their speaking skills and recognize it as an essential skill that may foster their development as a speaker. The second ODL principle from Saide (n.d) is “learning provision is flexible, allowing learners to increasingly determine where, when, what, and how they learn, as well as the pace at which they will learn” (para. 3). The modules are designed to cater to both synchronous and asynchronous sessions as the learners are supplied with a structure that will facilitate their own learning. While live instruction is significant, the learners’ need to pace their learning is also given importance. This will also benefit them in generating their motivation to actively participate in the discussion and tasks.

The modules intend to enable the success of the learners. This primarily focuses on how the module may cater to the development that the learners may attain by acknowledging the speaking practices provided in every lesson as it is an extensive informational tool that may support life-long learning. In this category, the ODL principle that can be applied from Saide (n.d) is “Providers create the conditions for a fair chance of learner success through learner support, contextually appropriate resources, and sound pedagogical practices” (para. 3). This signifies the supplementary learning that the learners are to receive from the teachers when they require their assistance. For the learners to progress, they must seek and acknowledge the aid that the teachers provide. The second ODL principle from Saide (n.d) is “Learning processes center on the learners and the contexts of learning, build on their experience, and encourage active engagement leading to independent and critical thinking” (para. 3). This describes the focus that must be allotted by the teachers on the learning processes that the learners will undergo to attain mastery of their target subject matter. Hence, the learners must undergo extensive exposure and practice since it will provide them with the vital elements that they require in order to progress through the module.

The modules target to accumulate success from the learners. This centers on the ability of the learners to connect their prior knowledge to the lessons that will be presented to them. This also influences them to use their prior experiences in the given tasks and assessments. Under this category, the ODL principle from Saide (n.d) is “Prior learning and experience are recognized wherever possible; arrangements for credit transfer and articulation between qualifications facilitate further learning” (para. 3). The types of speech will allow them to scaffold and prompt them to deepen their knowledge. During the tasks and assessments, they will be encouraged to activate their speaking skills further as they will be challenged to participate in the tasks that become more comprehensive as they progress in the module.

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The Effects of Project RePo on Students' Reading Proficiencies and Skills

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Abstract. This study was carried out to determine the effect of school's reading intervention program named Project RePo on reading proficiency levels and skills of Grade 7 students of Dña. Basilia S.Quilon Memorial High School. The efficacy of the reading intervention program was examined since the result of tests on the three skills in reading was used to determine the significant difference in pre and post test result. The researcher employed quasi experimental with one group pre- and post-test design. The data on reading proficiencies and skills were determined using the teacher-facilitated survey questionnaire and pre and post testing materials both adapted from standard set by the Philippine Informal Reading Inventory. The data were statistically analyzed using frequency, percentage technique, t-test dependent, and percent increase. All hypothetical questions were interpreted at 5% level of significance. The result of the pretest using the Phil-IRI showed that majority of the Grade 7 students belonged to the frustration level reading proficiency. Additionally, the significant increase revealed by the tests on the three skills implied improvement in the students' performance. Among the three skills, it shall be observed that improvement was most evident under reading comprehension while word reading improvement was the least evident.

Keywords: reading skills, reading proficiency level and Project RePo

1. Introduction

Reading is a habit where students learn, gain knowledge and develop new skills (Olivar, 2014). Understanding the significance of reading and in line with the implementation of the K to 12 Basic Education Program, the Department of Education (DepEd) implemented "Every Child Reader Program" (ECARP), through DepEd Memorandum No.402. s. 2004 and Administrative Order No. 324. This aims to teach public elementary pupils with planned training in reading and writing to make them independent young readers and writers. Moreover, ECARP is also part of the ten-point education agenda of President Simeon Benigno Aquino III to ensure that the country's public schools produce well-equipped graduates who could cope to the different challenges in life.

However, the recent trend on researches in the field of reading revealed that many high schools report large numbers of students who are reading below their expected level. Studies show that at least one out of five students has significant difficulty in reading acquisition (Therrien, 2004). Over the recent years, the percentage of high school students performing below the basic level in reading rapidly increased. The Division of Camarines Sur admitted that poor academic achievement is clearly shown in the low

ratings they receive in National Achievement Test (NAT). This was the grim revelation of the inconsistent results in the standardized test administered by the Department of Education in small, medium and big elementary schools in Pili West District, Camarines Sur for S/Y 2015-2016 with its dropping average of 59.42% for small schools, 67.80% for medium schools, and 56.38% for big schools. The over-all rating of the elementary schools the district revealed a 61.20% low performance which is distant far to surpass or at least meet the 75% passing rate set by the Department of Education (Villareal, 2018). Additionally, the Philippine Informal Reading Inventory (Phil- IRI) revealed that Grade 6 students in Pili West District, Camarines Sur for S/Y 2015-2016, showed that 60 percent or six out of 10 students were frustrated readers who had difficulty reading. A further 30 percent or three out of 10 Grade 6 students are instructional readers who need to be guided to read. Only 10 percent or 1 out of 10 Grade 6 students in the district are considered independent readers (Villareal, 2018). This denotes that learners had low reading proficiency level. These data as well suggest that the education system in the district is not effectively preparing the elementary students to reading achievement and it is indeed imperative to accumulate information on effective instructional practices to improve these trends.

With the unacceptable numbers of high school students do not read proficiently, it is imperative for a school to provide the best reading intervention practices to improve both reading fluency and reading comprehension, particularly on the 7th grade students because fluency and comprehension are important at this stage of development and early intervention can impact the progression of reading difficulties. Due in large part to accountability programs focusing on reading, DBSQMHS is increasingly providing instruction in reading to a large proportion of high school students performing below the basic level, and remedial reading intervention programs are becoming more widespread in the school. Additionally, literature was reviewed systematically in an effort to find the best reading intervention programs to intervene with students who are at-risk of reading disabilities.

The purpose of the study was to determine the reading proficiency levels of Grade 7 students in oral reading based on the Phil- IRI reading scale categorized into three levels: frustration, instructional and independent. This research work as well was carried out to implement school's reading intervention program named Project RePo designed to improve the reading proficiency levels of Grade 7- students. Hence, the efficacy of the reading intervention program was examined since the result of tests on the three skills in reading were used to determine the significant difference in the pre and post test result after the implementation of the school's reading intervention program.

1.1 Proposed Innovation, Intervention, and Strategy

The present study proposed reading program named Project RePo (Reading is Power) designed to improve the reading proficiency level of the Grade 7- students of DBSQMHS performing below their basic level reading. Project RePo consisted effective reading interventions as means of solving secondary students' reading problems. In an effort to cast a fairly wide net in my search for reading interventions designed for teaching and learning at high school levels, the researcher also did a hand search on researches concerning intervention programs for high school students who find school literacy a challenge. These reading interventions focus on the most critical components of reading

instruction necessary for students to become proficient readers. These critical components include decoding, word recognition, fluency and comprehension for improving reading proficiency level. The game-assisted reading interventions were validated, evaluated and finalized through Focus Group Discussion with the faculty of Doña Basilia S. Quilon Memorial High in School-Based Learning Action Cell (LAC) sessions of the school. Reading interventions included in the program have undergone thorough review and analysis by the experts in the field. They were composed of one Public School District Supervisor, one Teacher-In-Charge, one English Coordinator of the school and keynote speaker during the School-Based Learning Action Cell for Teachers: Focus Group Discussion on Schools Reading Intervention Program. They checked, critiqued and validated the reading interventions. After the validation, the comments, suggestions and recommendations of the validators were incorporated in the revision of the said reading interventions.

1.2 Action Research Questions

This action research aimed to determine the effect of school's reading intervention program named Project RePo designed to enhance the reading proficiency level of Grade 7 students of DBSQMHS based on their reading profile. Specifically, it sought to answer the following questions:

1. What is the reading proficiency levels of Grade 7 students of DBSQMHS in oral reading based on the Phil- IRI assessment tool?
2. What is the effect of the implementation of Project RePo in the reading skills of Grade 7 students?
3. What specific skills in oral reading were improved after the implementation of project RePo?

1.3 Action Research Methods

The study involved 3 months of quasi experimental research, covering the administration of pre- and posttests and also 15 weeks of conducting 5 sessions of 350 minutes teaching learning process. The design was quasi experimental with one group pre- and post-tests design. One single group of 30 students composed the samples of the study. Following this design, the experimental group was measured and observed before and after being exposed treatment (Project RePo). The implementation of Project RePo that focused on the specific critical component skills such as decoding, word recognition, fluency and reading comprehension was embedded in the group reading lessons. These students were taken out from their respective classes every afternoon to receive the treatment (Project Repo). The administration of reading interventions involved 1 week of conducting 5 sessions of 60 minutes reading instructions every day. Accordingly, before the implementation of the school's reading intervention program, the group was given the pre reading test. Then after the implementation of the reading interventions, the group was given the post reading test. The difference between posttest over pretest results was considered as positive cause of the improvement of the students reading skills.

1.3.1 Respondents and/or Other Sources of Data and Information – The respondents of this research were selected from the three (3) sections of Grade 7 students of Doña Basilia

S. Quilon Memorial High School. There were Forty-nine students (24 males; 25 females) from Grade 7- Faith, Forty-eight students (30 males; 18 females) from 7- Humility, and Fifty-two students (30 males; 22 females) from 7- Prudence. Selection of the respondents was based on scores from Phil IRI test result. Measures of reading comprehension was administrated in the first quarter of the school year to the three (3) sections of Grade 7 students of Doña Basilia S. Quilon Memorial High School. Those who qualified had the lowest comprehension skills based on the computed value of comprehension set by the Philippine – Informal Reading Inventory (Phil-IRI).

1.3.2 Data Gathering Methods – This research employed the use of Philippine Informal Reading Inventory (Phil-IRI) Testing Materials in data gathering. Phil-IRI material was used in determining the level of reading proficiency of the students before and after the implementation of Project RePo. This instrument was used to gather data needed for research question number 1. Further, the pre and posttest test derived from Phil-IRI were used to determine the significant difference of the students' performance in reading before and after the implementation of Project RePo. Moreover, the Phil- IRI Testing Materials were employed as well to answer the research question posted in the statement of the problem 2 which probed the significant difference in the reading proficiency levels of Grade 7 students before and after the implementation of Project RePo. For statement of the problem # 3, the same instrument was used to determine the significant increase from the pre and posttest result on the three skills based from the Phil-IRI.

1.3.3 Data Analysis – The data were processed, organized and analyzed using the appropriate statistical tools. **Frequency** was used to quantify the reading proficiency level of the students based on the number of times the data value occurred in the study. Further, it was used to find how often the students behaved while reading and what miscues were committed while the student was reading a passage orally. **Percentage Technique** was used to quantify the reading proficiency levels, oral reading miscues and oral reading behaviors of the students and converted them into percentage form. **Measure of Skewness** was obtained to determine if data is normally distributed or skewed. Skewness is significant if the obtained measure lies within the range of $[-2(se), 2(se)]$ where se is the standard error given by the formula $se = \frac{s}{\sqrt{n}}$ and n is the number of samples; **Wilcoxon-signed Test** was used to determine the effect of Project RePo on the reading proficiency of the students under study. Wilcoxon-signed test is used to determine significant differences on two groups of data that are not normally distributed. This test measured the differences under word reading the pretest and posttest of experimental groups as well as the difference between the posttest scores of both the control and experimental. **T-test Dependent** was used to determine the differences of two groups of normally distributed data that are matched or paired. **Percent Increase** was computed in determining the extent of improvement of the reading comprehension skills after the implementation of Project RePo. It is given by the formula: $PI = \frac{\text{Posttest score} - \text{Pretest Score}}{\text{Pretest Score}} \times 100\%$

Kruskal-wallis test was applied in determining the differences on the percent increase on the three skills of reading comprehension. This test is used in determining differences of three or more groups of data that are not normally distributed.

2. Results and Discussion

Table 1. Levels of Reading Proficiency of Section 1 to Section 3 Students in Oral Reading

Levels of Reading Proficiency in Oral Reading	Sections			Frequency	Percentage (%)
	Section 1	Section 2	Section 3		
Frustration	29	29	31	89	77.39%
Instructional	4	6	10	20	17.39%
Independent	1	2	3	6	5.22%
Total	34	37	44	115	100%

Table 1 disclosed the pretest result of the administration Philippine Informal Reading Inventory (Phil-IRI) on the reading proficiency level of Grade 7 students of DBSQMHS. Findings were the following: Frustration: The Phil-IRI revealed that 89 or 77.39% out of 115 Grade 7 students of DBSQMHS belonged to the frustration level in terms of their reading proficiency. Instructional: Based on the inventory, about 20 or 17.39% of 115 students belonged to instructional level. Independent: The inventory showed that only 6 or 5.22% of 115 students were able to reach the independent level of reading proficiency. As general interpretation, an alarming number of frustrated readers were revealed after the Philippine Informal Reading Inventory (Phil-IRI).

Table 2. Difference Between the Pretest and Posttest Result of Student with Intervention of Project Repo among the three Skills in Reading

Raw Scores	Critical Components Skills in Reading							
	Word Reading		Fluency (words per minute or wpm)		Reading Comprehension (%)		Reading Proficiency Level	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1.	86	93	70	86	67	83	F	INS
2.	59	90	35	45	67	67	F	INS
3.	89	99	91	133	67	100	F	IND
4.	93	99	147	145	14	86	F	IND
5.	90	96	102	114	50	86	F	INS
6.	81	95	51	82	50	100	F	IND
7.	87	92	76	105	33	100	F	IND
8.	81	90	48	59	50	67	F	INS
9.	81	96	32	57	67	67	F	INS
10.	81	91	65	93	33	83	F	INS
11.	89	96	63	85	17	86	F	INS
12.	86	99	82	144	67	83	F	IND
13.	89	99	120	146	67	83	F	IND
14.	81	90	70	70	33	83	F	INS
15.	88	94	84	111	43	100	F	INS
16.	86	95	70	111	67	83	F	IND

17.	71	93	40	77	83	83	F	INS
18.	81	96	54	104	33	50	F	INS
19.	94	98	78	120	43	71	F	INS
20.	89	95	68	102	43	71	F	INS
21.	87	96	53	85	33	83	F	INS
22.	73	95	59	82	33	83	F	IND
23.	83	96	87	122	71	86	F	INS
24.	89	95	70	82	17	83	F	INS
25.	83	97	103	133	43	86	F	IND
26.	86	92	108	122	43	71	F	INS
27.	89	98	150	182	33	83	F	IND
28.	89	96	87	123	67	83	F	INS
29.	59	80	30	67	83	100	F	INS
30.	93	99	181	111	43	86	F	IND
Average/Mean	83.77	94.67	79.13	103.27	48.67	85.23		
SD	8.40	3.87	34.84	30.50	18.86	11.23		
t-computed	4.79		5.82		8.62			
t-tabular	1.64		1.69		1.69			
Interpretation	Significant		Significant		Significant			

Table 2 disclosed the findings towards the analysis and examination of the vitality and crucial role of Project RePo on improving the reading proficiency level in oral reading. The result revealed that there is significant increase in the posttest scores of the students under word reading, (T(28) = 4.79). From the average pretest score of 83.77, students obtained a higher score with an average of 94.67 in their posttest. Results of T-test indicate a significant increase from pretest to posttest scores of the students under fluency, (T(28) = 5.82). From an average pretest score of 79.13, the students obtained an average posttest score of 103.27. Under reading comprehension, similar results were revealed by T-test dependent. There is a significant increase in the posttest scores of the students, (T(28)= 8.62) From the average pretest score of 48.67, students obtained a higher score of 85.23 in their posttest. The significant increase revealed by the tests on the three skills/areas implies improvement in the students' performance.

It shall then be concluded that Project RePo, an intervention given, was effective in enhancing students reading proficiency skills. Therefore, it is hereby recommended that school may use the reading program named Project RePo since the program has proven its worth in improving the reading proficiency level of Grade 7 students. Likewise, the teacher may also implement other reading interventions that may enable high school students with poor reading skills demonstrate reading progress. Finally, the reading interventions under Project RePo must be implemented for at least one school year to have a more conclusive result.

Table 3. Difference on the Percent Increase on the three skills of Reading with Intervention of Project Repo

Raw Scores	Critical Components Skills in Reading
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Experimental Group	Word Reading			Fluency			Reading Comprehension		
	(%)		% inc	wpm		% inc	%		% inc
	Pre	Post		Pre	Post		Pre	Post	
1.	86	93	8.14	70	86	22.86	67	83	23.88
2.	59	90	52.54	35	45	28.57	67	67	
3.	89	99	11.24	91	133	46.15	67	100	49.25
4.	93	99	6.45	147	145	-1.36	14	86	504.29
5.	90	96	6.67	102	114	11.76	50	86	72.00
6.	81	95	17.28	51	82	60.78	50	100	100.00
7.	87	92	5.75	76	105	38.16	33	100	203.03
8.	81	90	11.11	48	59	22.92	50	67	34.00
9.	81	96	18.52	32	57	78.13	67	67	
10.	81	91	12.35	65	93	43.08	33	83	151.52
11.	89	96	7.87	63	85	34.92	17	86	405.88
12.	86	99	15.12	82	144	75.61	67	83	23.88
13.	89	99	11.24	120	146	21.67	67	83	23.88
14.	81	90	11.11	70	70	0.00	33	83	151.52
15.	88	94	6.82	84	111	32.14	43	100	132.56
16.	86	95	10.47	70	111	58.57	67	83	23.88
17.	71	93	30.99	40	77	92.50	83	83	
18.	81	96	18.52	54	104	92.59	33	50	51.52
19.	94	98	4.26	78	120	53.85	43	71	65.12
20.	89	95	6.74	68	102	50.00	43	71	65.12
21.	87	96	10.34	53	85	60.38	33	83	151.52
22.	73	95	30.14	59	82	38.98	33	83	151.52
23.	83	96	15.66	87	122	40.23	71	86	21.13
24.	89	95	6.74	70	82	17.14	17	83	388.24
25.	83	97	16.87	103	133	29.13	43	86	100.00
26.	86	92	6.98	108	122	12.96	43	71	65.12
27.	89	98	10.11	150	182	21.33	33	83	151.52
28.	89	96	7.87	87	123	41.38	67	83	23.88
29.	59	80	35.59	30	67	123.33	83	100	20.48

30.	93	99	6.45	181	111	-38.67	43	86	100.00
Mean	83.77	94.67	14.00	79.13	103.27	40.30	48.67	82.53	108.82
SD	8.40	3.87		34.84	30.50		18.86	11.23	
Min			4.26			11.76			20.48
Max			52.54			123.33			504.29
t-computed	37.89								
t-tabular	5.99								
Interpretation	Significant								

Table 3 disclosed the findings on the specific skills that were improved after the implementation of Project RePo. The results showed that there is significant increase from the pretest and post test scores of the students on the three skills. Under word reading, the test indicates a significant increase in the posttest scores of the students. From the average pretest score of 83.77, students obtained a higher score with an average of 94.67 in their posttest. On the other hand, the test under fluency indicate a significant increase from pretest to posttest scores of the students under fluency. From an average pretest score of 79.13, the students obtained an average posttest score of 103.27. Under reading comprehension, similar results were revealed by T-test dependent. There is a significant increase in the posttest scores of the students. From the average pretest score of 48.67, students obtained a higher score of 85.23 in their posttest.

Among the three skills under oral reading, it shall be observed that improvement was most evident under reading comprehension with an average percent increase of 108.82%. Maximum percent increase was recorded at 504.22% where a student obtained a score of 14 in the pre-test and obtained a remarkable post test score of 86. Lowest percent increase was recorded at 20.48%. Improvement was least evident under word reading where average percent increase is only 14%. Maximum percent increase under this was recorded at 52.25% where a student obtained pretest score of 59 and a posttest score of 90. The lowest was recorded at 4.26%. These findings indicate the significant increase from the pretest and post test scores of the students on the three skills which implies a major reading achievement.

3. Conclusion

It can be gleaned from the result of the pretest using the Philippine Informal Reading Inventory (Phil-IRI) that majority of the Grade 7 students belonged to the frustration level in terms of their reading proficiency. These unacceptable data denote that it is imperative to design well-evaluated reading program that consists of effective reading interventions capable of enabling high school students with poor reading skills meet the demands of academically challenging tasks in reading. Hence, the need to improve the profile of the reading proficiency level of Grade 7 students is highly recommended. Educational leaders and teachers should provide increasingly instruction in reading to a

large proportion of high school students performing below the basic level, and remedial reading intervention program must become more widespread in secondary schools.

It shall then be concluded that the reading interventions focusing on reading comprehension skill was the most effective in enhancing students reading proficiency skills. However, the reading interventions under Word Reading (Decoding and Word Recognition) which were interpreted as the least improvement do not necessarily mean lesser effectivity when used in reading. It just calls for teacher's means and ways when employing such strategy to address problems of students performing below their expected reading level. It is therefore recommended that since the use of reading interventions under Project RePo had positive effect on the reading skills of the students such as word reading, fluency and reading comprehension.

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Ang WiKang Tagalog sa mga Tagalized K-Drama: Isang Pagsusuri sa Diskurso

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Abstrak. Ang pagkahilig ng mga Pilipino sa Hallyu o Korean Novela ngayong 21st century ay maiuugat sa kasaysayan ng Pilipinas dulot ng malawakang pagkakasakop sa bansa ng mga dayuhan. Dito, nakahanap ng malaking puwang ang South Korea sa buhay ng mga Pilipino sa pamamagitan ng mga Tagalized K-drama. Ang wikang Tagalog ang nagsilbing tulay nila upang maihain ang kanilang kultura sa pamamagitan ng mga K-dramang ito. Dahan-dahan at sa natural na paraan, lumawak ang impluwensya nito sa Pilipinas gamit ang telebisyon, internet, at socia media platform. Ang mga K-drama na ito ay naging bahagi na ng pang-araw-araw na buhay ng mga Pilipino na labis na nakabahala sa gurong mananaliksik sa Filipino. Kaya naman naisip niyang suriin ang kalagayang diskorsal at kultural ng wikang Tagalog bilang kasangkapan sa pagsasalin ng mga K-Drama. Ang pag-aaral ay pumokus sa pag-explore sa mga aspeto ng pagsusuri ng diskurso ayon kay Luo (2020). Piniling suriin ang mga K-Drama na: (1) Love Alert, (2) Descendants of the Sun, at (3) Mother. Pawang pagbibigay-pansin lamang sa paggamit ng Tagalog sa tatlong K-Drama ang ginawang pagsusuri bilang kinatawan ng kabuuan. Ginabayan ang mananaliksik sa pagsusuri ng diskurso ng Theory of Signs ni Pierce o tinatawag ding Semiotic sa ilalim ng konsepto ni Morris (1964). Natuklasan sa pag-aaral na ang ginamit na mga salita sa tatlong Tagalog Dubbed na mga K-drama sa kabuuang plotlines ng mga ito'y modernisadong wikang Tagalog sapagkat ang ginamit na mga salita ay hindi purong Tagalog gaya ng nakatitulo sa mga K-drama. Ang kaantasan ng mga salitang ipinanumbas sa mga pahayag ng mga karakter ay nasa antas pambansa sapagkat walang pinakamalalalim na pananalita, at nasa anyong madaling maunawaan ang mga pahayag sa bawat eksena ng mga saling episode. Nahaluan ng mga antas kolokyal, at Ingles na mga salita ang maraming pahayag, at ilang balbal na salita upang maging natural ang paglalahad at pagpapakilala sa kalagayang relasyunal at propesyonal sa lipunan ng mga tauhan, at maging ang pagtatampok ng kanilang mga emosyon. Naging tagapagtanghal din ang wikang Tagalog ng kulturang Pilipino at Korean. Ang paggamit ng "Po at Opo" at maging ng "Ate" at "Pasensya," ay malawakang ginamit sa mga pahayag, maging sa paraan ng pagdedeliber ng mga ito, naroroon ang tonong pagkamagalang. Malinaw na sa bahaging ito, nagkaroon ng akulturasyon. Subalit isinalin lamang ng Tagalog ang mga susing nilalamang kwento ng bawat drama dahil sa natuklasang ilang eksena sa ilang episode ng bawat K-drama na hindi na isinalin sa Tagalog. Samantala, ang kulturang Korean ay pinanatili. Hindi binago ang mga eksena at mga salita na naglalaman ng mga tradisyon ng bansang pinagmulan tulad ng pagyuko ng mga tauhan sa kapwa bilang paggalang, pagbati, at paghingi ng dispensa, mga pagkain, lugar sa Korea, at iba pa. Sa kabuuan,

ang Tagalog ay naging ahente ng kulturang Pilipino at Korean sa paghahatid ng mga ito sa mga Pilipino.

Mga Susing Salita: Pagsusuri ng Diskurso, K-Drama, Akulturasyon, Semiotic

1. Introduksiyon

Ang pagkahilig ng mga Pilipino sa Hallyu o Koreanovela ngayong 21st century ay nakaugat sa kasaysayan ng Pilipinas dulot ng malawakang pagkakasakop sa bansa ng mga dayuhan. Dito, nakahanap ng malaking puwang ang South Korea sa buhay ng mga Pilipino sa pamamagitan ng mga Tagalized K-drama. Ang mga Tagalog-dubbed K-dramang ito ang nagsilbing tulay nila upang maihain ang kanilang kultura sa mga Pilipino. Dahan-dahan at sa natural na paraan, lumawak ang impluwensya nito sa Pilipinas gamit ang telebisyon, internet, at social media platform. Ayon kay Chiu (2016), nagsimula ang popularidad ng mga K-drama sa bansang Tsina noong huling 1990. Katunayan, ang terminong “Hallyu” na tumutukoy sa popularidad at paglaganap ng kulturang Koreano sa buong mundo, ay nilikha ng isang dyornalista ng Beijing noong 1999. Mula ryan, lumaganap na ito sa buong mundo sa tulong na rin ng advance na teknolohiya kabilang na ang online streaming sites at mga social networking sites. Partikular, ang masusugid na mga tagasubaybay ay nakatulong sa paghahanda ng mga subtitles sa iba’t ibang lenggwage tulad ng Ingles, Chinese, Japanese, Spanish, Vietnamese, at iba pa. Ang mga K-drama na ito na may mga subtitle ay nakatulong na makaakit ng pandaigdigang awdyens sa hindi nakaaalam sa Korea.

Nang ang Korean Wave o Hallyu ay nagsimulang umani ng batayan o ground sa kalagitnaan ng 1990s, ang mga pangunahing elemento na niyakap ng mga Asyanong manonood sa merkado ay ang K-Drama at K-Pop. Dahan-dahan at sa natural na paraan, ang mga tagasubaybay nito ay lumawak sa labas ng Asya. Habang ang internet at ang social media platform ay lumulutang sa henerasyong ito, ang mga balakid, mga limitasyon, at mga hangganan ay nasira, at ang kulturang Koreano na binubuo ng pagkain, literatura, wika, at pati mga webtoon ay dahan-dahang tumawid sa iba’t ibang bansa. At ang mga Pilipino sa bahaging ito ay matagal nang sumakay sa Korean Wave na ito, lalo na ng K-Pop at K-Drama.

Ang mga pangunahing katangian ng mga K-drama na nagustuhan ng pandaigdigang awdyens ay karamihan nagtatanghal ng mga tradisyonal na pagpapahalagang Confucian tulad ng pagpapahalaga sa mga relasyon ng pamilya, paggalang sa mga magulang, pagkakaibigan, at pagmamahal na may unibersal na pang-akit, at nailahok pa nila ang mga tradisyonal na pagpapahalagang ito sa Kanluraning Materyalismo at indibidwalismo na humihikayat sa makabagong manonood. Halos lahat ng K-drama ay nakaugnay sa mga pangunahing tauhan na nagtagumpay sa lahat ng pagsubok at nagsisikap na umangat mula sa kahirapan at iyang “rags-to-riches” na mga kuwento’y may global na pang-akit. Sa pangkalahatan, ang mga K-drama ay hindi gaanong sekswal at bayolente kumpara sa Kanluraning mga drama.

Dinisenyo ang mga K-drama na magtapos sa ispesipikong bilang ng mga episyodo, siksik ang mga naratib at ang istorya ay nakatuon sa sentrong tema. Ang mga simpleng storyline ang naging daan sa madaling pagsubaybay at ito rin ay nakapagpapadali sa pagtukoy sa pagitan ng masama at mabuting gampanin. Higit pa ryan, dahil sa mga simpleng storyline, sila’y higit na nakahilig sa pagsasadula ng mga umiinog na relasyon

o mga sigalot sa pagitan ng mga indibidwal, na nakapagpaemosyonal sa mga K-drama kumpara sa mga drama sa iba't ibang bansa at ito'y nakatulong upang makawit ang mga manonood (Chiu, 2016) kabilang na ang mga Pilipino.

Ayon nga kay Capistrano (2020) mula sa ABS CBN news, maraming salik sa pagsikat ng K-drama, partikular sa karamihang Pilipino. Sa ibaba ay mababasa ang ilang puntong ibinahagi niya ukol sa katangian ng mga K-drama:

1. REFRESHING, FORWARD-LOOKING CONTENT. Ang mga kumpanya ng Korean entertainment ay naging epektibo sa paglikha ng "bago at nakatitigatig" na nilalaman, patunay ang tinangkilik na "It's Okay To Not Be Okay" na tumalakay sa kalusugang mental sa kalalakhian. "Napakadalang na makita ang mga lalaki na nagpapahayag ng kanilang mga pagdurusa ukol sa kalusugang mental, at ang dramang ito ay may malaking impact," patuloy niya.

2. MGA PROMOSYON, FAN BASE. Sa ibabaw ng "napakadinamikong sistema" ng agresibong promosyon ng mga K-drama, katulad ng ginawa sa mga talent ng Korean music. Wika pa ni Capistrano, ang isa sa malalaking channel, KBS, ay may mga YouTube channel na nakadedikado sa tiyak na nilalaman, epektibong tumutugon sa mga pangangailangan ng mga manonood. Tuloy-tuloy na pagdaloy ng nilalaman hindi lamang mula sa mga bagong talent kung di maging mula sa mga seasoned Korean actor. "Palagian silang patuloy na naghahandog ng mga bagong drama," dagdag pa niya.

3. MAS MAIKLING MGA PROGRAMA. Ang isa pang salik na nakapagpalapit sa mga K-drama sa mga Pilipino ay ang haba nito, ayon kay Capistrano. Isang tipikal na haba ng mga serye ng Korean ay 16 hanggang 24 na mga episodyo, kasalungat ng mga lokal na palabas na nagtatagal ng ilang buwan, o di kaya'y maraming taon.

Ang mga K-drama ay may mga "bagong konsepto at mga plot, (Gandia mula kay Abayon, 2017). Plot na maganda at kainte-interes, mabuting pacing, mahusay at makatawag-pansing soundtracks/musical scoring, at magandang casting (Gandia mula kay Kim, 2017). Dagdag pa niya, ang mga K-drama ay may napaka-accessible at nakaadliw na daan patungo sa iba't ibang pagkukwento, iyong mga nagtatanghal at nagpapahintulot sa pagdanas sa buong kultura – pagkain, fashion, isports, at kabilang na ang turismo. Pagpapalawak pa ni Nonato (2020), "ang magandang pagkukwento ay magkahalong apoy sa sikmura at mahalagang sukat ng konsistensi sa paggamit ng mga kagamitang pandramatik para hindi lamang ito basta inilagay bagkus pinag-isipang mabuti. Kailangan ang prinsipyo ng pagkukwento para maiayos nang tama ang mga pangyayari upang mapalutang ang dramatik na emosyonal at tematik na kahalagahan ng naratib.

Ang mga K-Drama at K-Culture ay isang pinagsaluhang karanasan sa pagitan ng Pilipinas at Korea sa panahon ng pandemik (Han, 2020). Sabi nga ng beteranong manunulat ng lifestyle na si San Juan (2020), natagpuan niya na ang mga Pilipino ay praktikal na napwersang tumungo sa isang "digital diet," na may palagiang presensya ng social media at nag-aamuki sa kanilang magpalitan ng talaan ng dramang mapapanood at chat ukol sa mga popular na mga Korean pop group.

Subalit, ang karanasan ng persepsyon ng mga Pilipino sa Koreanovela ay hanggang sa pagsasalin at dubbing lamang, para masanay at makatunog lamang sa dayuhan, at hindi tuluyang makapapasok sa anumang estetikong nakapaloob sa drama (Plaridel-Sanchez, 2014). Ito rin ay nagbibigay-kahulugan ng patuloy na internalisasyon ng “Korean aesthetic” ng mga lokal na produksiyon at ng estetiko, ibig sabihin, ang pormal na aspeto ng mga ‘soap’ na isinalin sa lokal. Estetiko sa pakahulugang, “isang karanasan sa paggawa–pagsasalin” (Fowler, 2014), higit pa sa pagbibigay-diin sa “katangian ng paggawa” at pagpapahiwatig ng isang mapanuring pagtataya sa kanilang “kagandahan.” Gayunman ang estetiko per se ay tumutukoy sa pagkanatural ng gawain gaya ng pagkaunawa, finitingnan sa usaping ito na kinondisyon, hinubog, at binigyang kahulugan ang pagsasalin ng kontekstong kultural. Ang paliwanag dito, ito’y dahil sa lampas sa pagiging lingguwistiko ang pagsasalin at mataas na kasanayang intelektuwal at karunungan pangkultura ang hinihingi nito sa sinumang naghahangad na maging tagasalin.... (Coroza, 2016).

Dahil sa malawakang pagtangkilik na ito sa Hallyu, maging ang kulturang Koreano ay nagiging bahagi na ng pang-araw-araw na buhay ng mga Pilipino mula sa mga uso sa Korea, sa pagkain, sa mga kilos at kaanyuan, at maging sa pananalita tulad ng, “oppa” (brother), “unni” (sister), “anyeonghaseyo” (hello), at iba pa ay sadyang masisinag ang malaganap na pagkahumaling na ito (Gandia, 2017). At sa pagkahumaling na ito, ano ang naging gampanin ng wikang Tagalog? Sa pag-aaral na ito itinanghal ang Tagalog bilang midyum sa pagsasalin ng mga K-drama.

Ang tatlong K-dramang pinag-aralan ay may iba’t ibang usaping panlipunan at popularidad sa mga Pilipino at dahil sa naiere na ang “Love Alert” at “Mother” sa magkaibang istasyon ng telebisyon bukod pa sa malawakang panonood dito sa internet. Bagaman sa tatlong ito, “Descendants of the Sun” ang higit na umani ng napakalaking popularidad sa mga manonood na Pilipino mula sa mga tahanan hanggang sa akademya.

a. Layunin ng Pag-aaral

Dahil sa tila bahagi na ng pang-araw-araw na buhay ang mga K-drama, ang kuryusidad ng gurong mananaliksik sa Filipino ay naghatid sa kanya upang tuklasin sa papel na ito ang kasagutan sa tanong na: Ano ang kalagayan ng wikang Tagalog sa mga diskurso ng mga K-dramang 1) Love Alert, 2) Descendants of the Sun, at 3) Mother? Gayundin sinikap tugunan ang mga tiyak na katanungan sa ibaba:

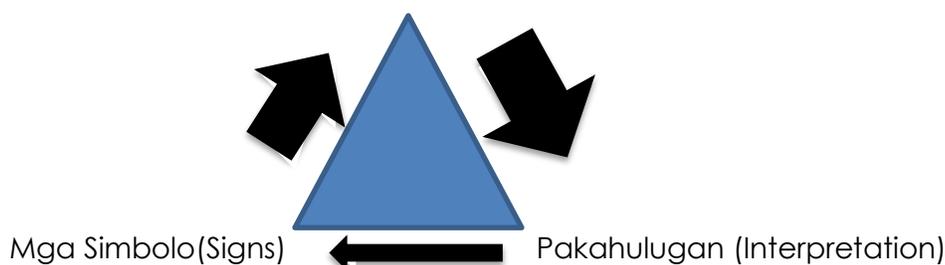
1. “Bakit Tagalog ang ginamit na termino sa mga dubbed na K-drama at hindi Filipino?”
2. Ano ang naging gampanin ng Tagalog sa paghahatid ng mga K-drama sa mga Pilipino?”
3. Paano ginamit sa pagsasalin ng mga K-drama ang Tagalog?”
4. May naisalin bang kulturang Pilipino sa mga Tagalog Dubbed na K-drama?”

b. Teoretikal na Balangkas

Ang mga datos na tinuklas ng mananaliksik ay ipinaliliwanag ng Teoryang Semiotic ni Pierce mula sa konsepto ni Morris (1964). Ayon sa kanya, ang mga tao raw ay mga interpreter ng mga simbolo. At ang mga simbolo ay may tatlong salik na gumagabay

sa pagbibigay-interpretasyon, ang designative, ang appraisive, at ang prescriptive. Ang una'y aspetong tumutukoy sa interpreter sa isang partikular na bagay o object. Ang ikalawa naman ay nagpapatingkad sa mga katangian ng bagay o object, nagbibigay-daan sa ebalwasyon. Samantala, ang ikatlo'y aspetong naghahatid sa isa na tumugon sa mga tiyak na paraan – dito ang tao'y tumutugon. Kaya sa pagsusuri sa mga diskurso na isinakay sa mga diyologo/pahayag ng mga tauhan sa tatlong K-drama na nasa wikang Tagalog, ang huling binanggit ang tumatayong mga simbolo na may taglay na mga kahulugan batay sa pagkakagamit sa bawat eksena na binigyang kahulugan ng mananaliksik bilang interpreter. Ang mga kahulugang na-perceived ng mananaliksik ay batay sa mga salitang (bokabularyo) ginamit sa pagbuo ng mga pahayag (grammar) sa loob ng tekstong K-drama at kung paano nilikha ang teksto (Tagalog dubbed K-drama), diyan nagkaroon ng naratibo na patingkad pa ang mga kahulugan sa tulong ng mga di-berbal na aspeto (tono ng boses, paghinto ng kilos, verbatim, at iba pa), at ng koda ng konbersasyon (interaksyon ng mga tauhan). Ang ugnayang ito ng simbolo o signs at kahulugan o meaning ay makikita sa ilustrasyon 1.

Ilustrasyon 1. Teoretikal na Balangkas
Semiotic (Morris, 1964)
Kahulugan (Meaning)



2. Metodolohiya

Kwalitatibong disenyo ito ng pananaliksik. Pinili ang mga K-drama batay sa pinakaumani ng popularidad sa maraming Pilipino, at yaong tumatalakay ng mga paksang pasok din sa panlasa't karanasan ng mga Pilipino. Ang mga K-dramang ito'y ang *Love Alert*, *Descendants of the Sun*, at *Mother*. Sa paggamit ng pamaraang pagsusuri ng diskurso na ayon kay Luo (2020) ay isang kwalitatibong metodo ng pananaliksik para sa pag-aaral ng pasulat o pasalitang wika kaugnay ng kontekstong sosyal, sinuri ng mananaliksik ang pagkakagamit ng Tagalog sa mga diskursong pasalita sa mga saling episode ng bawat dramang nabanggit. Partikular, ginawang gabay sa pangangalap ng datos ang a) Bokabularyo, b) Grammar, c) Istrukturang, d) Genre, e) Di-Berbal na Aspeto, at f) Koda ng Konbersasyon. Inunawang mabuti kung paanong ginamit ang wika sa mga tunay na kalagayan. Nagbigay-tuon sa: (1) mga layunin at iba'ibang uri ng wika, (2) mga tuntuning kultural at konbensiyon ng komunikasyon, at (3) Paanong ang mga pagpapahalaga, paniniwala at mga pananaw ay naipahayag.

Isinagawa ang pagtatala ng mga pahayag sa dyornal na nagpapakita ng mga makahulugang pagkakagamit sa wikang Tagalog sa mga eksenang salin. Sinipat nang mabuti ang mga salitang ginamit sa konteksto, ang pagkakabuo ng naratibo sa tulong

ng grammar at istruktura, gayundin sa mga di-berbal na aspeto ng komunikasyon tulad ng tono, at kilos o galaw ng katawan. Binigyang interpretasyon sa parehong mga detalye ng mismong materyales at sa kontekstwal na kaalaman. Gayundin bilang soap opera na batid natin ay nagbabahagi ng mahabang-tulong na persepsyon ng pagiging genre ng pagsulat. Sinipat din ang mga isyu ng kasarian, uri, at, ang lahi, kabilang din ang diyalogo bilang pagsasalang inihanda halimbawa sa depiksyon ng kanilang mga posisyong karakter, bilang mga lalake at babae, ang kanilang mga uri, at kamalayan bilang mga indibidwal, at ang kanilang pananaw sa mundo bilang mga Koreano. Ang magbubukod lamang ngayon dito ay ang katotohanang sa lokal, ang mga aktor at aktres sa mga soap na ito ay nagsasalita sa Filipino. Ang transpormadong tunog at pandama, gayunman, ay nagtataglay pa rin ng cross-textuality, ang pinakamanipestasyon ng mga diyalogo na lumikha sa posibleng Korean turn. Ang pagsalalin ay napakaimportante sa proseso dahil sa ito ang nagiging kasangkapan ng pagkalas at pagsala nang makatwiran sa mga kultural na pagkakaiba (Luo, 2019).

3. Resulta at Pagtalakay

3.1 “Bakit Tagalog ang ginamit na termino sa mga dubbed na K-drama at hindi Filipino?”

Ginamit ang terminong Tagalog sa mga pamagat na “Tagalog Dubbed K-drama” bilang pamosong pagkakakilanlan ng ating unang katawagan sa batayan ng wikang pambansa—Tagalog. Maging sa Kanlurang bansa, ito rin ang kilalang tawag sa ating wika na pinag-aaralan na rin ng mga dayuhang kabataan bilang elektib na foreign language. At ang pangkalahatang anyo ng mga salita sa tatlong K-dramang pinag-aralan ay nasa kaanyuan ng Tagalog, may konsistensong bigkas, sulat, at basa maliban sa ilang mga pahayag na nahaluan ng mga salitang Ingles na may di-konsistent na palabaybayan. Tingnan ang mga piling pahayag sa Ilustrasyon 2:

Ilustrasyon 2. Modernisadong Wikang Tagalog sa mga K-drama

Love Alert	Mula sa Decendants of the Sun Season 1	Mother (Episodyo 1)
EP 4 – Dwayne Cha “ Ah, Hello! Ako po si Dwayne Cha, ang boyfriend ni Kelsey.	EP 2 – Dr. Kang “Dr. Song, ‘ pag ang isang sundalo sinundo ng isang helicopter , sa gera ba ang punta non? ”	EP 1 – Sandy Kang “Ngayon na ang tamang season para maka-harvest ng isang taong worth of data. ”
EP 5 – Dwayne Cha “ I-check n’yo ang oxygen saturation level! ”	EP 2 -Dr. Kang “Halika nga! Gusto mo ba sapakin kita?”	EP 1 - Teacher Mia “Bagay nga sa ‘ yo dahil medyo cold ka at manhid.”
EP14 – Papa ni Kelsey “Si Kelsey, ah , anak ko s’ya . ‘ Nong araw na mamatay ang mama mo, ‘ nong araw din na nangyari ang	EP 8 –Capt. Lucas Yoo “ Na-miss talaga kita. Kahit anong gawin ko, lagi kitang naiisip. Nagpapakapagod ako, pinilit ko,	EP13 – Kristel Shin “Nabasa ko ang article mo. Para bang lumalabas na sobra kong inabuso ang bata kaya

malaking sunog, ang batang iniligtas ko noon, si Dwayne 'yon."	nagpakalasing ako, sinubukan ko lahat, pero na-miss pa rin kita."	napilitan si Sandy Kang na kidnapin ang anak ko."
EP 16 – Kelsey "Gusto ko ' pag gano'n pa rin ang nararamdaman natin, after one year magpapakasal pa rin tayo."	EP11 - Lt. Moira Yoom "Lumabas ka! Under quarantine ako! Infected ako! Instead , natatakot ako. Lucas, pwede mo bang ilabas ang lalaking ito? "	EP 14 – Ina Kim " Okey lang po ba ang mama ko ngayon? Araw-araw ko rin po s'yang iniisip."

Batay sa mga hangong pahayag ng mga tauhan sa tatlong Tagalog Dubbed K-drama, ang ginamit na mga salita sa kabuuan ng bawat isa ay modernisadong wikang Tagalog na nasa kaanyuan na ng taguring Filipino, wikang pambansa ng Pilipinas na nahaluan na ng mga salitang hiram mula sa katutubong wika at wikang banyaga. Ang ginamit na mga salita ay hindi purong Tagalog gaya ng nakatitulo sa mga K-drama batay sa nakasaad sa mga kolum ng bawat K-dramang pinag-aralan, ang paghahalo ng mga salitang Ingles sa mga pahayag tulad ng "Under quarantine ako!" "Na-miss talaga kita!" "Infected ako!" "Instead, natatakot ako." ay pawang kailangang isulat sa ganitong anyo upang maipahayag nang malinaw at eksakto ang kalagayan ng mga tauhan at upang maipakita ang natural na paggamit nito sa tunay na buhay. Maging ang tiyak na propesyon at relasyon ng tauhan sa kanyang kapwa tauhan, tulad sa linyang ito, "I-check n'yo ang oxygen saturation level!" Ang pahayag na ito'y nagpapakilala na ang tauhan ay may alam sa mga terminong pandoktor na ipinakilala sa katauhan ni Dr. Dwayne Cha. Ang malawakang paggamit ng mga salitang nasa antas kolokyal sa tatlong K-drama tulad ng mga salitang mga pinaikli, "n'ya," "ganon," "pag," "nong," "gera," at "s'yang'" ay labis na kapuna-puna. Ang kadahilan sa likod ng mga pahayag na ito ay sasampa sa usaping pasalitang diskurso. Ang mga pahayag ay sadyang nilikha upang ipabigkas sa mga tauhan dahil sa genre nitong "drama." Ang mga pahayag ay nararapat na bigkasin sa paraang may natural na bilis ng pagdedeliber sa mga tiyak na sitwasyon at eksena, mga pahayag na ang pagkakabuo ay nasa karaniwang anyo ng pangungusap. May isa ring napunang balbal na antas ng wika mula sa linyang, "Halika nga! Gusto mo ba sapakin kita?" Ginamit ang salitang "sapakin" upang ipakitang may labis na malapit na relasyon ang nagsasalita sa kanyang kausap, na mas may eksaktong kahulugan kaysa sa gagamitan ng salitang, "suntukin."

Sa kabuuan, ang kaantasan ng mga salitang ipinanumbas sa mga pahayag ng mga karakter ay nasa antas pambansa sapagkat walang napakalalim na pananalita, nasa anyong madaling maunawaan ang mga pahayag sa bawat eksena ng bawat episode. Bagaman nahaluan ng mga antas kolokyal, balbal at Ingles na mga salita upang maging natural ang pagpapahayag at maipakilala ang mga tauhan maging ang paglalahad sa kanilang mga kalagayan sa lipunan, at maging ang kanilang mga emosyon.

3.2 Ano ang naging gampanin ng Tagalog sa paghahatid ng mga K-drama sa mga Pilipino?

Naging tagapagtanghal ang wikang Tagalog ng dalawang kultura - Pilipino at Korean. Ang paggamit ng "Po at Opo" ay malawakang ginamit sa tatlong K-drama sa mga pahayag ng mga karakter ng nakababata sa mas nakatatanda, talent sa manedyer, at potograper sa manunulat, mula sa "Love Alert." Sarhento sa kanyang kapitan, at pasyente sa kanyang doktor, mula naman sa "Decsendants of the Sun," at ugnayang anak sa ina, bunso sa ate, at iba pang sitwasyong kailangang magpakita ng paggalang at relasyon sa pakikipag-usap, mula naman sa "Mother." Sa puntong iyan, Pilipinong-Pilipino ang salin, naging natural na kulturang "Pinoy" ang naging dating sa manonood at napalalim pa sa pamamagitan ng paggamit ng mga di-berbal na aspeto tulad ng tono ng boses, paghinto sa pagsasalita, at kilos o galaw ng mga tauhan. Maging sa tradisyon ng mga Korean na yumuyuko sa kausap bilang pagpapakita ng pagbati, paghingi ng pasensya, at paggalang, ang mga ito'y sinabayan din ng mga pahayag na may "Po at Opo." Dito pinagsanib ang kulturang Koreano at Pilipino. Naitanghal din nito ang matibay na ugnayan ng isang ina sa kanyang anak mula sa "Mother." Ipinakita kung paanong ang mga salita ng ina ay nakapagpapalakas sa loob ng isang anak sa gitna ng pag-iisa at kalungkutan, gayundin ang pagkakaroon ng damdaming pag-asa. Ito'y unibersal na kalagayang naitanghal nang mabisa sa "Mother," tulad sa pahayag na ito:

"...magsulat ka sa diary. Isulat mo hindi lang 'yong mga paborito mo, kung 'di pati iyong mga ayaw mo at mga bagay na kinatatakutan mo. Basta lahat ng hindi mo kayang sabihin sa ibang tao. At Palagi kang mag-iisip gamit ang puso mo na balang araw magkikita pa tayo ulit."

Sa bahaging ito ay nagkaroon ng Akulturasyon sa panig ng manonood na mga Pilipino at ng dalawang kultura –Koreano at Pilipino. Ang Akulturasyon ay asimilasyon sa iba't ibang kultura, tipikal, sa isang dominante. Ang proseso ng akulturasyon ay may impak pareho sa lipunan at sikolohikal na kalagayan ng tao.

Naging ahente ng pagpapakilala at pag-aangat ng kakayahan ng wikang Tagalog ang pinakamagandang naipakita ng mga Tagalized K-drama sa mga Pilipinong manonood. Naipakita nang buong tiwala ng wikang Tagalog ang kagandahan nito. Napatunayan nitong hindi kulang ang wikang Tagalog para makapagsalin ng anumang akdang mula sa wikang dayuhan, partikular sa wikang Korean na malawakan nang napatunayan sa pagsasalin mula sa Ingles at iba pang wika sa Kanluran.

Natural na inilahad ng Wikang Tagalog ang plotlines ng bawat K-drama. Sa magkakaibang emosyonal lebel ng bawat K-dramang inaral. Nakapasok ang wikang ito sa pinakasulok na bahagi na puso ng manonood na napaigting pang higit dahil sa musika na bagaman nasa wikang Korean, nakasabay ito sa pagpapalutang ng pinakamalalim na emosyon ng tauhang si "Sandy Kang" sa "Mother" sa maraming emosyonal na eksena. Idagdag pa ang mabisang pagkakagamit niya ng ekspresyon ng mukhang nakapagpakita ng kalituhan, labis na pag-aalala, at pagkatakot. Naipadama ng wikang ito sa mga manonood ang malalim na koneksyon ng mga tauhan sa isa't isa mula sa pinakamagaang na usapan patungo sa pinakaemosyonal na interaksyon ng mga karakter.

3.3 Paano ginamit sa pagsasalin ng mga K-drama ang Tagalog?

Isinalin lamang ang nilalamang kwento ng bawat drama. Ang ilang eksena sa ilang episodyo ay hindi na isinalin sa Tagalog. Ang magkakatuhog na mga eksena ng plotlines lamang ang naging tuon ng pagsasalin sa Tagalog na kitang-kita sa "Love Alert" na ultimo pamagat ay isinalin mula sa orihinal na, "Fluttering Warning" upang mailahad nang buong linaw ang storylines. Samantala, ang kulturang Korean ay pinanatili. Hindi binago ang mga eksena at mga salita na naglalaman ng mga tradisyon ng bansang pinagmulan tulad ng pagyuko ng mga tauhan sa kapwa, mga pagkain, lugar sa Korea, at iba pa. Pero ang katawagang "ate" ang ginamit sa "Mother" sa nakatatandang kapatid na babae na sa halip sabihin sa wikang Korean na "unni" upang mapalutang ang matibay na ugnayan ng magkakapatid na kultura ng manonood na Pilipino. Sinabayan din ng mga pahayag na nasa Tagalog ang mga kilos, ekspresyon ng mukha, at interaksyon ng mga tauhan sa bawat K-drama na hindi nabago ang kahulugan ng mga eksena.

4. Kongklusyon at Rekomendasyon

Sa kabuuan, ang wikang Tagalog na ginamit sa mga Tagalog dubbed K-drama ay modernisadong wikang Tagalog na naka-adapt na sa bagong panahon, at nasa taguri ngayong Filipino. Gumamit ng iba't ibang kaantasan ng wika tulad ng kolokyal, at ilang balbal. Mayroon ding varayti ng wika tulad ng Jargon na nagpakilala ng mga katayuan at propesyon ng mga tauhan sa tatlong K-drama. Nagpakita rin ng paggamit ng mga tauhan ng kanilang sariling paraan ng pagpapahayag sa gitna ng kanilang mga kauri, tinatawag na idyolek, at marami ring hiram na mga salita upang mapalutang ang mga kalagayan at karakterisasyon. Subalit sa kabuuan, antas pambansa ang naging dominante. Nagsilbing tagapagtanghal din ng kagandahan ng wikang Tagalog ang mga Tagalized K-drama, mabisang naideliber ang kwentong Koreano sa mga Pilipino nang natural subalit ang isinalin lamang ay ang kwento bagaman nakapagpakita ng kulturang Pilipino sa pamamagitan ng paggamit ng "Po at Opo, maging ng salitang "ate" at "Pasensya na," na pawang nababalot ng kahulugan ng kulturang Pilipino.

Kaugnay ng naging nakawiwiling pag-aaral na ito, magandang tuklasin pa nang malawakan sa napakarami pang mga Tagalized K-drama kung may iba pang kulturang Pilipinong nailahok bukod sa paggamit ng mga salitang paggalang na binanggit gayundin ang prinsipyong ginamit sa pagsasalin sa mga K-drama sa wikang Tagalog.

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Readability assessment of self-learning modules for senior high school applied track subjects

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Abstract. Subjects in senior high school (SHS) are grouped into core curriculum, applied track, and specialized. Among these, applied track subjects are contextualized and taken by all students, focusing on specific applications of other subjects to learners' career track or learning strand. Considering the data gathered via DepEd's Learner Enrollment and Survey Form (LESF), showing more than 42 percent (8.8 million) of parents preferring the modular distance learning modality (Agoncillo, 2020; Mocon-Ciriaco, 2020), the current study delved into the readability of self-learning modules (SLMs) basically serving as primary learning materials for new normal education. The corpus was subjected to a readability assessment using (1) Flesch Reading Ease and (2) Flesch-Kincaid Grade Level via Microsoft 365 Word. This action research identified that SHS applied track SLMs are, generally, fairly difficult to read. Two out of the six modules: (1) Entrepreneurship and (2) Inquiries, Investigations, and Immersion are beyond learners' grade level, requiring the understanding of a college student and an above-average reader. The study recommends a more in-depth analysis of SLMs other than mere readability and to present a proposed Learning Resource Development Plan (LRDP) on writing in Plain English, a field that remains unexplored in education, particularly in basic ed.

Keywords: printed modular distance learning, self-learning materials, self-learning modules, new normal education, readability assessment

1 Introduction

In the education landscape of the Philippines, senior high school (SHS) comprises of two years of specialized upper secondary education, particularly Grades 11 and 12. This level is specifically for learners of 16 to 18 years of age (Macha, Mackie, & Magaziner, 2019).

With this, the then DepEd Secretary Bro. Armin Luistro had envisioned that "Every Filipino who finishes senior high school should be ready to go to college, or to take up work or employment, or start their own business, or take up other higher technical skills" (DepEd Philippines, 2015). This is for senior high school is where learners are trained to be college-ready, work-ready, and future-ready (Mocon-Ciriaco, 2018) as reflected by the four curriculum exits set by DepEd, namely: higher education, entrepreneurship, employment, and middle-level skills development.

Subjects in senior high school (SHS) are grouped into core curriculum, applied track, and specialized. Among these, applied track subjects are contextualized and taken by all students regardless of strand, focusing on specific applications of the other two subject groups to learners' career track or learning strand.

Below is a numerical summary of the subjects that senior high school students have to take before they can be considered graduates.

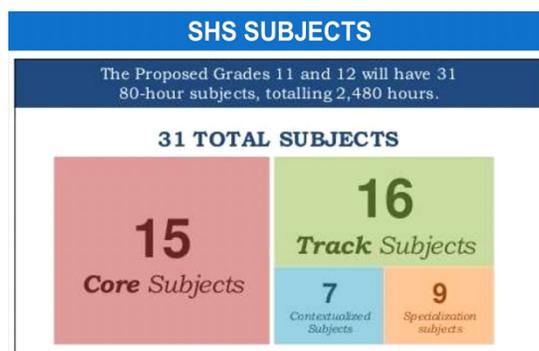


Figure 1. Total number of subjects that SHS students need to take (R Manresa School, 2015)

There are seven (7) applied track subjects in senior high school: (1) English for Academic and Professional Purposes, (2) Practical Research 1, (3) Practical Research 2, (4) Filipino sa Piling Larang for the following tracks: Akademik, Isports, Sining, and Tech-Voc, (5) Empowerment Technologies (for the Strand), (6) Entrepreneurship, and (7) Inquiries, Investigations, and Immersions. Six of these seven subjects are written in the English language.

Though the Philippines has been implementing the Bilingual Education Policy (BEP) since 1987, it still faces slamming by a few sectors of society as it was found out that the alleged decline in student learning was linked to other issues, such as inadequate teacher training, textbooks, and learning materials (Gonzalez & Sibayan, 1988 as cited by Bernardo, 2008). Still, one of the recurring themes in debates over this issue is the notion "those who benefit from education in English are those who are already proficient in the language" (Bernardo, 2004 as cited by Koo, 2008).

With this, the current study shall delve into assessing the readability of self-learning modules (SLMs) that basically serve as the textbooks and primary learning materials for teaching in the new normal. The readability assessment shall serve as basis for a learning resource development plan (LRDP) as a supplementary resource for teacher training in writing learning materials and other resources in Plain English, a field that remains unexplored yet in the context of education, particularly in basic ed.

1.1 Literature review

The concept of readability has been around for quite some time. Such topic has been published in books since then, but it only gained its popularity beginning in 1940s. Readability research, according to Clark (1975), tells us is that when longer sentences

and harder words are used, writing becomes increasingly difficult to understand. How the writer uses this information reduces in the end to how important the reader is perceived to be in the communication process. If readers do not find a reading material of use to them or if it does not spark their interest or if they do not, at least, find pleasure in reading it, and they have the feeling that it was not written with them in consideration, they will simply stop reading.

Clark (1975) claims that the term 'readability' has several meanings: (1) ease of comprehension or understanding; (2) reading interest value; and (3) ease of legibility due to typographical or other factors. As far as ease of comprehension or understanding is concerned, DuBay (2008) states that readability concerns the measurement of text to predict the ease of reading. This is then supported by Wallwork (2016), who reiterates that every word written by students needs to be understood by their readers. The style they use in their writing should, by all means, be accurate, emphatic, and precise. Relevance should be considered. Also, DuBay (2008) gives importance to readability being a factor in written communication.

Moreover, as regards to reading interest value, Wallwork (2016) assumes that if readers continue to receive no value from the text they are reading, instead of scanning left to right along a line of text, they scroll from top to bottom. Readers thus read vertically rather than horizontally until they find what they want. Reader understanding depends on reader ability as well as the text (DuBay, 2008). With this, Wallwork (2016) asserts that the writer is virtually 100% responsible for whether the reader understands the text or not.

1.2 Research problems

This research aims to:

1. What is the readability of SHS SLMs for the applied track subjects?
2. In terms of readability, are the SLMs for SHS applied track subjects appropriate to learners' grade level? Are the SLMs easy to read?
3. How can the findings of the study serve a basis for a Learning Resource Development Plan (LRDP) on writing in Plain English?

2. Main Body of the Paper

Having no face-to-face interactions between the teacher and learners now constitute the learning modalities in the new normal. Given this situation, most students, especially for those students who selected the printed modular distance learning modality, only communicate with their teacher via instant messaging apps or scheduled consultations via online conferencing tools. These strategies to supplement learning, though, are not always plausible due to problems in internet accessibility in the country and learners' lack of gadgets. This scenario leaves students powerless as they are somewhat left behind if they get to backread messages, mostly answers to frequently asked questions (FAQs), at a later time or worst, never get to read them at all.

Conducting the current study is a means of ensuring that students, generally, and as expected of their grade level, will not have trouble in understanding the content of the

SLMs. This is given the fact that printed modular distance learning modality in new normal classes does not involve the teacher's physical presence as well as face-to-face interactions in the traditional classroom.

Second, conducting the current study is hoped to increase level of accessibility of, not only the SLMs to be subjected to readability assessment, but, ideally, all learning resource materials to be developed by the Department.

2.1 Research design

The study utilized a quantitative research design, specifically making use of Microsoft Word 365's Readability Statistics featuring the Flesch Reading Ease and the Flesch-Kincaid Grade Level.

The subject of the study are the six (6) self-learning modules (SLMs) in the applied track subjects: English for Academic and Professional Purposes, (2) Practical Research 1, (3) Practical Research 2, (4) Empowerment Technologies (for the Strand), (5) Entrepreneurship, and (6) Inquiries, Investigations, and Immersions. The SLM for the subject Filipino sa Piling Larang for the following tracks: Akademik, Isports, Sining, and Tech-Voc were excluded from corpus to be subjected to readability assessment for the reason that there is no existing standard yet in examining the readability of texts written in Filipino.

2.2 Data collection

To come up with the quantitative data, the Researcher gathered the modules by downloading them from the Google Drive folders shared by the Regional Office to the Division Offices, that which were shared by the Division Offices to District Offices, down to the school level. These modules are accessible once a Google Drive user visited the online folder at least once while using a Google account exclusively for DepEd employees, thus bearing the @deped.gov.ph domain name. Email addresses belonging to this domain are managed by DepEd, have Google Workspace as the tenant, and are issued to employees free of charge.

After collecting the corpus, it was subjected to a readability assessment using the research instruments (1) Flesch Reading Ease and (2) Flesch-Kincaid Grade Level accessible via Microsoft 365 Word, a word processing software that features an Editor and Readability Statistics. Results of the readability assessment, which constitutes the quantitative data, showed corresponding numerical interpretations of the corpus subjected to analysis.

2.3 Results

From the readability check conducted by the researcher to the corpus (students' writing outputs), the following results were derived.

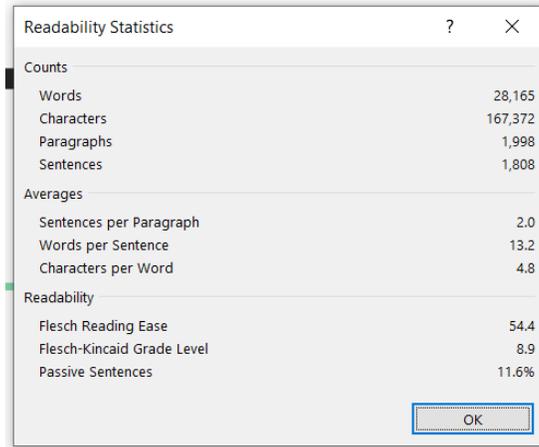


Figure 2. Readability statistics of the SLM for the subject English for Academic and Professional Purposes

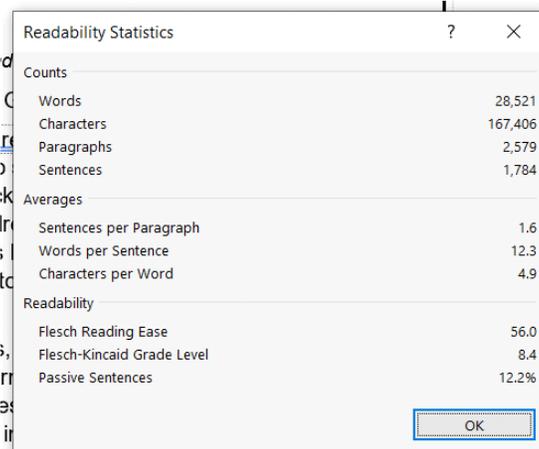


Figure 3. Readability statistics of the SLM for the subject Empowerment Technologies

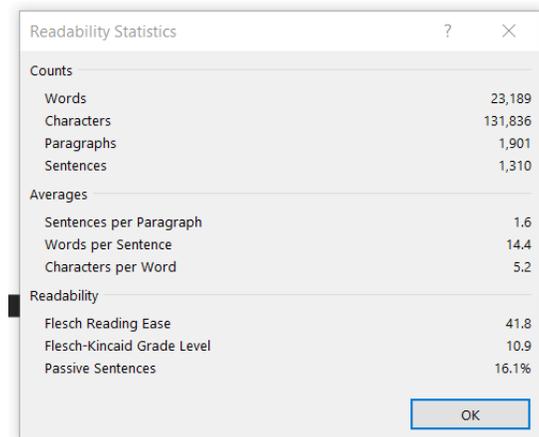


Figure 4. Readability statistics of the SLM for the subject Entrepreneurship

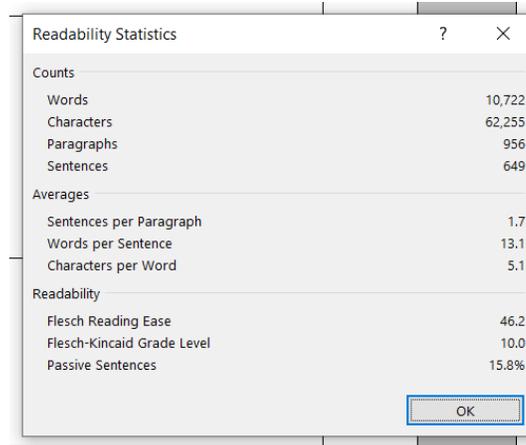


Figure 5. Readability statistics of the SLM for the subject Inquiries, Investigations, and Immersion

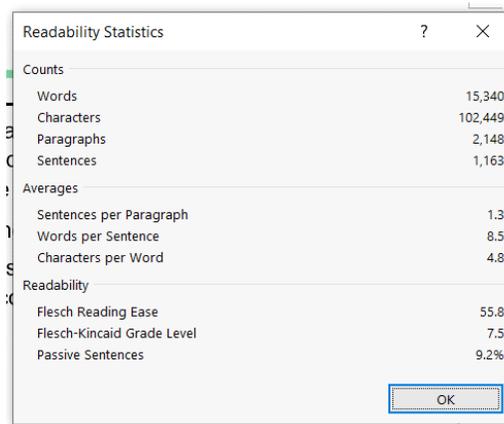


Figure 6. Readability statistics of the SLM for the subject Practical Research 1

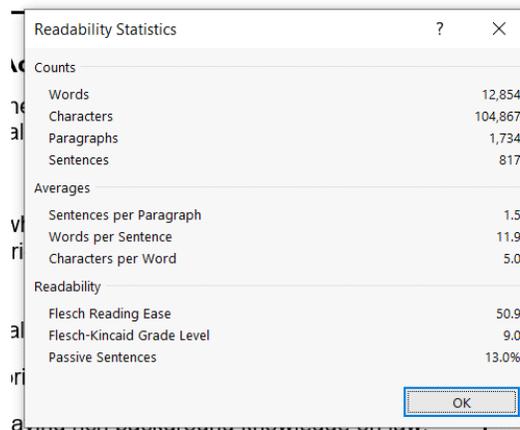


Figure 7. Readability statistics of the SLM for the subject Practical Research 2

3. Conclusion

Readability indices are a formal and quantitative means of measuring the readability of a certain text. Certainly, learning resource developers and teachers cannot simply rely on mere instinct and on their content knowledge of the subjects they write about and teach, respectively, in deciding as to whether the SLMs are grade-level appropriate for students or not. Not that the Researcher is undermining their credibility and expertise, but what the current study is trying to point out is that the entire Department needs the help of readability indices to quantify how should learning resources be accessible to learners.

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English language proficiency as predictor of academic achievement in science and mathematics

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Abstract. The students' poor performance in Science and Mathematics is often linked to the poor language proficiency of students, particularly, reading comprehension. This study is anchored on basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP) as theorized by Cummins (1984, 2000). This study used the predictive correlational design to determine the specific language component and cognitive skills that contribute to the students' performance in Science and Mathematics. This involved 125 randomly chosen students who took the CEM Post-test. Data revealed that out of the six language components, Application, Analysis, Evaluation are significant predictors of students' over-all performance in Mathematics. Though the language components do not affect the over-all performance in Science, there are certain cognitive skills in Science where language components are found to be contributory. Application, Analysis, and Evaluation, as cognitive skills in English contribute to the development of the Application skill in Science; Analysis and Evaluation skills in English contribute to the development of the Evaluation skill in Science. It was also found in the study that in Mathematics, Grammar and Reading are not helpful in the students' performance. Furthermore, Reading and Understanding as cognitive skills in English do not affect any sub-skills in Science. Improving the students' performance in Science and Mathematics requires the development of their cognitive (higher order thinking) skills in English language. Thus, the following recommendations for language teachers were given: a) implement the use of text across disciplines in active reading activities and assessments; b) provide activities which focus on enhancing and assessing the students' cognitive academic language proficiency.

Keywords: Cognitive Academic Language Proficiency, Academic Performance, Basic Interpersonal Communication Skills

1 Introduction

The rapid development of technology today requires an educational system that allows the development of scientific and mathematical skills of the students (Imam et al, 2014). Keeping up with this technological advancement has become a challenge to educational institutions so as to keep their graduates relevant in the industry. In the Philippines setting, Science and Mathematics have been taught in all levels of education as mandated by Commission on Higher Education (CHED) and Department of Education (Deped) Curriculum.

However, despite Deped's and CHED's effort to improve the situation, the performance of Filipino students in these subject areas seemed to continuously decline. Tubeza (2009, cited in Imam, 2014), for example, reported that despite the country's higher literacy rate at 93.4% in 2008 as reported by the United Nations Development (UNDP) in 2009, performance in Science and Mathematics of Filipino students for the last nine decade had remained to be poor. Imam's (2010) claim has been supported by the fact that from 1984 and 1994.

This poor performance in Science and Mathematics is often linked to the poor language proficiency of students, particularly, reading comprehension. This is evident in the study of Imam (2010) in which he reports that DepEd regarded reading comprehension as the single factor which caused frustrations of students to perform better in science achievement test.

In a similar vein, poor reading comprehension has been singled out by the Department of Science and Technology (DOST), Department of Education (Deped), and Science Education Institute (SEI) as the principal factor in the depressing performance of students in the National Achievement Test (Rimando, 2006 cited in Imam, 2014).

Though several studies have been conducted on the relationship of language proficiency on academic achievement, there is a dearth of literature focusing on the specific language construct that predicts academic performance.

These findings relevant to language proficiency and academic achievement prompted the researcher to look into the specific language components that directly contribute to the academic achievement of student in both Science and Mathematics.

1.1 Theoretical Framework

This study is anchored on basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP) as theorized by Cummins (1984, 2000).

Cummins (2000) explained the distinction of basic interpersonal communicative skills (BICS) and cognitive/academic language proficiency (CALP). BICS, on one hand, is said to be at play when there are contextual supports and props for language delivery like facial expressions, gestures, instant feedback and other cues that support oral interactions. These language situations are further described by Cummins (1984, 2000) as context embedded situations. CALP, on the other hand, is said to exist in a context reduced academic situations where higher order thinking skills such as analysis, synthesis, and evaluation are required.

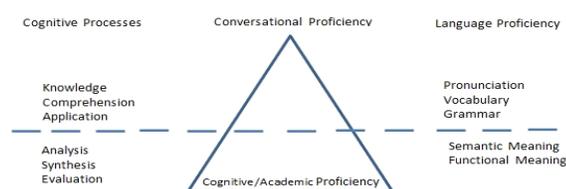


Fig. 1 The distinction of basic interpersonal communication skills and cognitive academic proficiency

1.2 Conceptual Framework

This study aims to identify the specific components of language proficiency that directly contribute to academic achievement particularly, in Science and in Mathematics. This study focuses mainly on determining which of the language components have the greater effect on academic achievement both in Science and Mathematics.

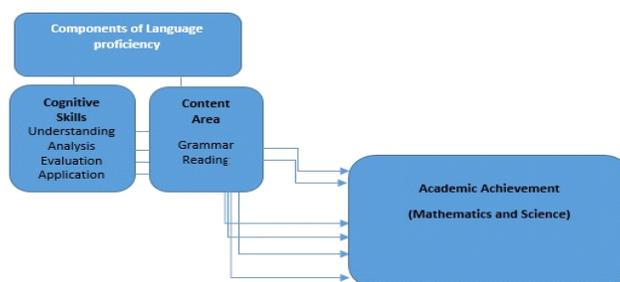


Fig. 2 Components of language proficiency that contribute to academic Achievement

1.3 Research Question:

This study attempts to determine the components of language proficiency that contribute to the students' academic achievement. Specifically, it seeks to answer the question:

Which components of language proficiency predict performance in Science and in Mathematics?

2 Methodology

2.1 Research Design

This study used predictive correlational design since its aim was to describe the students' language proficiency and their academic achievement, and to determine the specific language component and cognitive skills that contribute to their academic performance.

2.2 Data

The data used in the study was the result of the 2017-2018 Center for Educational Measurement (CEM) Post-test in English, Science and Mathematics of the 125 out of 278 randomly chosen grade 10 students. Considering Green (1991)'s formula $N > 50 + 8m$ (where m is the number of IVs) for testing regression, 125 samples is deemed adequate given that there are six independent variables in the current study.

2.3 Data Analysis

The measure used for language proficiency of the students was the CEM post-test results in English, which consist of the content areas – grammar and reading, Cognitive skills - understanding, analysis, application, evaluation. Scores from each cognitive skill and content areas of the English post-test were used as independent variables, while the scores in Mathematics and Science Post Tests were the dependent variables. Regression analysis was performed to predict the effect of English language proficiency to academic achievement.

3 Results and Discussion

3.1 Descriptive Statistics

As can be seen in Table 1, students have higher mean scores in all but one language proficiency component, which is evaluation, than the over-all performance in Mathematics and in Science. Knowledge in Grammar which is part of the content area of language proficiency, has the highest mean score (71.464); whereas the highest mean score in the cognitive skills is Analysis (71.60). This descriptive statistic suggests that majority of the grade 10 students are performing better in English than in Science and in Mathematics subjects. Moreover, it can be gleaned that students have the lowest performance in Mathematics as compared to Science and other language components both in content area and in cognitive skills in English.

Table 1. Descriptive Statistics

	GRAM	READ	UND	APP	ANA	EVA	MATH_OP	SCI_OP
Valid	125	125	125	125	125	125	125	125
Missing	4	4	4	4	4	4	4	4
Mean	71.464	66.624	70.080	69.208	71.160	64.400	53.256	68.584
Std. Deviation	15.430	24.137	21.808	19.378	19.363	23.349	19.563	71.829
Skewness	-0.730	-0.693	-0.561	-0.942	-0.604	-0.618	0.140	9.493
Std. Error of Skewness	0.217	0.217	0.217	0.217	0.217	0.217	0.217	0.217
Kurtosis	0.036	-0.742	-0.914	0.692	-0.538	-0.225	-0.867	100.503
Std. Error of Kurtosis	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
Minimum	30.000	11.000	23.000	17.000	24.000	0.000	16.000	10.000
Maximum	100.000	100.000	100.000	100.000	100.000	100.000	93.000	824.000

In general, the negatively skewed scores of the students reveal that majority of them got higher than the median score in all the language proficiency components. Scores in Mathematics and in Science are both positively skewed which means students got lower scores than the median score. As revealed by table 1, majority of the students have a high

level of English language proficiency as measured by their performance in English. The leptokurtic distribution in Science shows that majority of the students got scores below the median score although there are few students who got extremely high scores.

3.2 Performance in Mathematics

A linear regression was performed to ascertain the effects of English Proficiency on the academic performance of students, particularly in Mathematics and Science. For Mathematics, the linear regression model was statistically significant. The correlation (R) between English Proficiency and Performance in Mathematics is high (0.708). The R^2 accounts for the 50.1% of the variance $F(1,123)=123.519$, $p<.001$.

Table 2. Components of language proficiency as predictors of achievement in Mathematics

Coefficients						
Model		Unstandardized	Standard Error	Standardized	t	p
1	(Intercept)	7.643	6.340		1.206	0.230
	GRA	-1.542	0.728	-1.216	-2.119	0.036
	REA	-1.236	0.708	-1.524	-1.744	0.084
	ENG_UND	0.599	0.337	0.668	1.779	0.078
	ENG_APP	0.699	0.337	0.692	2.075	0.040
	ENG_ANA	1.375	0.483	1.361	2.847	0.005
	ENG_EVA	0.775	0.323	0.925	2.399	0.18

- a. Dependent Variable: Math Over-all Performance
 b. Predictors: Grammar, Reading, English_Understanding, English_Application English_Analysis, English_Evaluation

Table 2 provides data on the relationship between and among the components of language proficiency and students' performance in Mathematics. As shown in the Table, three out of six language components such as Application ($r= 0.699$, $p= <0.05$), Analysis ($r=1.375$, $p = <.05$), Evaluation ($r=0.775$, $p=<.05$) are significantly and positively correlated to students' performance in Mathematics. Grammar is negatively correlated ($r= -1.542$, $p=<.05$), that means, performance in Mathematics decreased by 1.542 for every unit increased in Grammar.

This result shows that not all sub-components of language proficiency are contributory to performance in Mathematics. As argued by Cummins (1984), students need to acquire certain cognitive skills in language proficiency such as Analysis, Synthesis, and Evaluation so as to cope with the demands of other academic courses. In his model, Cummins (1984) poses that Application as a cognitive skill is needed in attaining Basic Interpersonal Communication Skill (BICS), and is a pre-requisite in attaining the Cognitive/Academic Language Proficiency (CALP). The result of this study; however, suggests that Application as a cognitive skill is a significant contributor to performance in Mathematics. Similarly,

reading as a component of language proficiency is found to be negatively correlated with performance in Mathematics ($r = -1.236$, $p = >.05$).

It appears that the content area in English which is comprised of Reading and Grammar does not contribute in improving the mathematical ability of students; rather developing the cognitive skills, particularly, application, analysis, and evaluation does.

3.3 Performance in Science

Linear regression of performance in Science based on the performance in the sub-components of English language proficiency was calculated. The correlation coefficient (0.202) shows that the over-all performance in English is a weak predictor of performance in Science, $F(1,123)=5.254$, $p=0.024$, with an R^2 of 0.041.

3.4 Correlation between components of language proficiency (LP) and performance in Science

Table 3. Components of LP as predictors of performance in Science.

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p	95% CI	
							Lower	Upper
1	(Intercept)	35.369	33.479		1.056	0.293	-30.928	101.666
	GRA	-1.601	3.843	-0.344	-0.417	0.678	-9.211	6.010
	REA	-0.509	3.741	-0.171	-0.136	0.892	-7.917	6.899
	ENG_UND	0.133	1.779	0.040	0.075	0.941	-3.390	3.655
	ENG_APP	1.024	1.779	0.276	0.576	0.566	-2.499	4.547
	ENG_ANA	0.590	2.551	0.159	0.231	0.817	-4.461	5.642
	ENG_EVA	0.921	1.706	0.300	0.540	0.590	-2.457	4.300

a. Dependent Variable: Science Over-all Performance

b. Predictors: Grammar, Reading, English_Understanding, English_Application, English_Analysis, English_Evaluation

The students' performance in English, both in content area, namely Grammar and Reading and the cognitive skills like understanding, application, analysis, and evaluation are not predictive of the students' over-all performance in Science.

Although Grammar and Reading are not significant predictors of students' performance in Science, their correlation coefficient is large. This means that Grammar and Reading do not contribute to success in Science performance; rather, students, probably do not benefit in the content area in English as a tool in achieving performance in Science. Seemingly, the type of reading materials used in their Reading classes is not that beneficial to their Science subject. Result also suggests that students lack understanding of the scientific texts due to their lack of exposure to these genres. This can be reflected by their performance in Understanding as shown in the correlation coefficient, which appears to be the weakest in all the cognitive skills. The weak correlation coefficient

between understanding as a cognitive skill and performance in Science indicates poor comprehension of students of scientific texts.

Over-all the content area (grammar, reading) and Cognitive skills (understanding, applying, analysis, and evaluation) in English do not influence students' over-all performance in Science. This result also indicates that the level of language proficiency of students in relation with their performance in Science is an evidence of attaining only the level of basic interpersonal communication skills since students are having difficulty in understanding scientific texts.

To further examine how language proficiency predicts performance in Science, linear regression analysis between the components of language proficiency (Content area: reading and grammar; Cognitive skills: understanding, analysis, application, evaluation) and components of Competence in Science (Content Area: Living things and their environment, Matter, Force, Motion and Energy, Earth and Space; Cognitive Skills: Remembering, understanding, applying, analyzing, evaluating) was run. Unsurprisingly, the students' performances in Reading, Grammar, and Understanding are not predictors of the students' success in all the sub-components of Science competence whereas Analysis and Evaluation, being part of the cognitive skills in English proficiency, have an effect to Application and Evaluation skills in Science.

Table 4. Components of LP as predictor of Cognitive (Application) Skill in Science

Coefficients						
Model		Unstandardized	Standard Error	Standardized	t	p
1	(Intercept)	15.063	7.858		1.917	0.058
	GRA	-2.376	0.902	-1.501	-2.634	0.010
	REA	-1.654	0.878	-1.635	-1.884	0.062
	ENG_UND	0.664	0.417	0.593	1.592	0.114
	ENG_APP	1.059	0.418	0.840	2.536	0.013
	ENG_ANA	1.863	0.599	1.477	3.112	0.002
	ENG_EVA	1.186	0.400	1.134	2.961	0.004

a. Dependent Variable: Cognitive Skill in Science: APPLICATION

b. Predictors: Grammar, Reading, English_Understanding, English_Application, English_Analysis, English_Evaluation

Tables 4 shows that although language proficiency does not have an effect to the over-all-performance in Science, there are specific cognitive skills in English language proficiency which are contributory to the development of the cognitive skills in Science. In this case, Application, Analysis, and Evaluation predicting the development of the Application skill in Science; and Analysis and Evaluation skills in English predicting the development of the Evaluation Skill in Science. It is worth noting, though, that Reading and Understanding in English do not affect any of the sub-skills in Science as opposed to the result of Imam (2010, 2014)'s investigations.

3.5 Conclusion

Data revealed that out of the six language components, only three - Application, Analysis, Evaluation are significant predictors of students' over-all performance in Mathematics. Though the language components do not affect the over-all performance

in Science, there are certain cognitive skills in Science where language components are found to be contributory. Application, Analysis, and Evaluation, as cognitive skills in English contribute to the development of the Application skill in Science.

Another major finding of this study was that in Mathematics, Grammar and Reading are not found to be helpful in the students' performance. Furthermore, Reading and Understanding as cognitive skills in English do not affect any sub-skills in Science.

3.6 Recommendation

The evidence from this study suggests that improving the students' academic performance particularly in Science and Mathematics requires the development of their cognitive (higher order thinking) skills in English language. For the English language learning to be beneficial across subject areas, students must go beyond understanding the content areas in English, specifically, Grammar, Reading, Vocabulary, and Pronunciation, though these sub-skills are necessary in developing the Basic Interpersonal Skills (BICS). Strategies to develop the cognitive skills in English might involve a) implementing the use of text across disciplines in active reading activities and assessments; b) providing activities that focus on enhancing and assessing the students' cognitive academic language proficiency; c) further investigation, however, has to be done on the negative effects of grammar and reading to the students' performance in Mathematics and in Science. The notion of being proficient in grammar makes students overly critical on the structure of language; thus, overlooking the contextual meaning of the texts has to be established.

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Post-Method Pedagogy: Need Analysis for an EFL Matriculation Program for Higher Education

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Abstract. The need of being conversant in English has been known to be eminent due to several drives, such as the globalization, digital economy, disruption, and literacy. The pervasiveness of English as a global language, however, has brought awareness of its menace of homogenization, imperialism, and colonization. On this, Kumaravadivelu (2003) strongly argues the need of decolonizing ELT pedagogy which requires more essential progression of controlling principles and practices of planning, teaching, and learning English within post-method pedagogy. This study reported need analysis of a general English Program in an EFL higher education. A mixed method study was initiated by conducting situational investigation of the program covering content analysis of the institutional values, vision, and the institutional language policy. Subsequently, series of interview with the program management and material designers were administered to gain data on the implementational level of the language policy within post-method parameters. Finally, students were surveyed on their perception of the program quality. Results of this need analysis were elaborated with post-method principles to suggest a model of the instructional material. Two cycles of field validations were suggested using the framework of action research.

Keywords: Post-Method, Action Research, EFL, Need Analysis

1. Introduction

The urgency of mastering English has been driven by several causes, such as the globalization, digital economy, disruption, and literacy. The extensive use of English as the effect of globalization (Crystal, 1997) has caused the potential homogenization as reflection of imperialism and colonization (Phillipson, 1992 in Hinkel, 2011). Meanwhile, the emergence of world Englishes as the product of nativization process of indigenizing English linguistics system (Kachru, 1982 in Kumaravadivelu, 2003), is distinguished from decolonization which takes more essential progression of controlling principles and practices of planning, teaching, and learning English (Kumaravadivelu, 2003).

On the praxis level, however, it is observed that attempts to de-westernize programs, methods, and material often appear insignificant, even claimed simply as “decentering the authority of western interests over ELT industry” (Kumaravadivelu, 2003). For instance, Zacharias and Manara (2013) observe the adoption of system developed in the Anglophone world as the benchmark of professionalism to meet the standards, criteria, and qualification, the beliefs and attitudes oriented towards native norm syndrome have been common practice for Indonesian teachers. The imported standards, principles, methods, or theories might not always match with local context and situation as foreign language learning and its acquisition, which Larsen-Freeman (2011) call complex,

situated, and likely multivariate. The complexity has been called to emerge bottom-up from interactions of multiple agents in speech community (Larsen-Freeman, 1997; 2009; 2011).

Dichotomy between well established-imported or tailor made-localized method has been part of the ELT dynamic progression. Discontentment towards language teaching methods that fails to recommend the best and most effective one (Kumaravadivelu, 2003; Saengboon, 2013; Chen, 2014, Akbari, 2008; Prabhu, 1990), has driven the rise of Postmethod pedagogy. Kumaravadivelu (2003) elaborates the growing awareness of overcoming discrepancy between theory and practice, of the necessity to prepare professional language teachers, and of the essential role of teacher beliefs, reasoning, and cognition as its major characteristics. Teachers, therefore, should merge the capacity of being classroom practitioners and experts, capable of theorizing and producing local, specific, and novel practices in their instruction (Kumaravadivelu, 1994). Research on postmethod pedagogy in the landscape of English instruction as a foreign language has been mostly dealing with teachers' perspectives, qualities, development, or education (Akbari, 2008; Chen, 2014; Saengboon, 2013). As limited studies have been found on postmethod pedagogy enactment on English language material design for EFL higher education, this study, therefore, aims to showcase need analysis as initial development process of instructional material for College English within the principles of postmethod pedagogy.

To achieve the objectives, a need analysis was administered integrating qualitative data from the institutional language policy, the head of Language Training Center, and material developers and quantitative data gained from students' quality evaluation. The analysis results in devising a model of material design within the framework of postmethod pedagogy. Moreover, validation procedures are planned to make sure the model work consistently, reaching its stability. Expectedly, this study lays foundation for the succeeding research to validate and evaluate the material model.

2. Research Methods

This study adopted the initial stages of ADDIE framework (Branch, R. M., 2009). It consists of 5 steps, namely: 1) Analysis, 2) Design, 3) Development, 4) Implementation, and 5) Evaluation. The modification includes elimination of performance gap validation on the need analysis stage since English skill diagnostic test has been conducted by the university as part of its admission procedure. Moreover, calculation return on investment is also not included on the development stage as this item is not considered relevant with the purpose of this study. Another modification is related to the stage of implementation, in which instead of preparing teachers and students, the model is field tested using classroom action research mechanism to result in improving evaluation criteria for the field implementation on the last stage.

Due to some limitations, results of need analysis, design, and development are not completely elaborated in this article. Plan for implementation and evaluation is suggested as recommendation based on theoretical frameworks on postmethod pedagogy combined with principles of material implementation and evaluation.

3. Need Analysis Results

The need analysis in this study was administered by firstly identifying the environment analysis (Tessmer, 1990 in Nation and Mcalister, 2020) which involves looking at the factors having a strong effect on decisions about the goals of the course, what to include in the course, and how to teach and assess it. These factors can arise from the learners, the teachers, and the teaching and learning situation. Environment analysis is also called "situation analysis" (Richards, 2013), "means analysis", or "constraints analysis".

The subsequent progression of need analysis of this study has resulted in devising what Hutchinson and Waters (1987) call Necessities (What is necessary in the learners' use of language), Lacks (What do the learners lack), and Wants (What do the learners wish to learn).

3.1 Environment Analysis

Established in 1985, the university once was a Theological Seminary founded in 1962. Upholding cultural diversity, the students are about 5000 coming from various culture, ethnics, and religions. Founded upon four pillars of values obedience, integrity, excellence, and service, graduates are prepared to be a new breed of professionals. All of these are based on a belief that "the fear of the Lord is the beginning of knowledge, but fools despise wisdom and instruction" (Proverbs 1:7a) and on Pancasila as the national ideology.

Preparing graduates to be professionals to win the global competition, the competency-based curriculum or KBK (Kurikulum Berbasis Kompetensi) with formulation of courses that develops learners' hard-skills and soft-skills, or core-discipline subjects and their supporting ones to achieve these objectives. KKNi or National Qualification Framework, soon replaced by "Kurikulum Merdeka Belajar", is developed based on Perpres No. 8 2012. The curriculum requires universities to produce the alumnus who have a major competency, supporting competency, and an additional competency as well as an acceptable qualification relevant to the job skill which is accepted in the job market.

Introduction to College English subject, as part of institution language policy, was academically regulated to facilitate non-English-department students with English skills both for their future-professional life and immediate-academic purposes in ESP courses. As the objective is to provide scaffoldings for the next stage of English proficiency, each level is directed towards more specific objectives. The first level helps students to demonstrate competence of survival English to engage in daily communication needs. Taking speaking as its focus, the classroom activities attempt to balance the need of language accuracy and fluency. Level two takes speaking as its primary focus and reading as the secondary one with a broader coverage of topics. Level three emphasizes primarily on developing speaking and writing competence as an effort to help students communicate more abstract ideas such as expressing opinions on local and global problems.

3.2 Interview the Head of Language Training Center

Interview with the head of LTC and material developer aims to gain data on managerial and conduct of the language in education policy on ICE. In-depth interview was chosen due to the nature of qualitative data needed and the relationship between the researcher and the resource persons as colleagues in the language training center. Clandinin, D. J., & Huber, J. (2010) in-depth interviewing enabled the researcher delves

into the subject's deeper self produces more authentic data. Johnson (2002) suggests that one of its assumption is seeing the world from the respondent's point of view Marvasti, A. (2010) by not limiting respondents to a fixed set of answers, in-depth interviewing has the potential to reveal multiple, and sometimes conflicting, attitudes about a given topic.

The two heads of LTC, Andy and Riri (pseudonyms), were interviewed separately. Andy as the former head has been teaching for more than 20 years. Meanwhile, Riri has less teaching experience and had more experience in non-academic managerial position. Having equal academic qualification, Andy admitted that working in managerial position in the LTC has been facilitated by his experience of being part time teachers for about 2 years and assignments as permanent teaching staff. Riri, on the other hand, acknowledge that managing an academic program in the LTC is a new assignment for her.

Being a program manager and coordinating about twenty part time teachers are admittedly challenging. On this aspect Riri claimed "some teachers perform very well academically and as team members. They even voluntarily share ideas in groups and take extra responsibilities as members of material developer team, however there are few who prefer to play by the rules, indecisive and avoiding risk taking, by consulting class policies that they should have decided themselves..."

In terms of ESP need analysis both admitted holding repeated discussions with department chairs to assess the focuses skills and need the English program. In general, all of them state the need of being able to converse, deliver presentation, and write in English within topic coverage of their disciplines. For departments of Design and Architecture Riri asserts: "the students need oral and written English for their future jobs as designers who need to present their ideas and products". Concerns of equipping graduates with English skill to advance their competitive advantage is admitted some department head as Riri illustrates: "too bad that students who are excellent in their disciplines sometimes are not fluent in English, and they miss opportunities for competitions overseas" These results confirm the language-in-education policy as stated earlier in the situation analysis this program has been administered for quite a long period of time to prepare students' English competence for ESP and their future professional need. These purposes could accommodate the need for a language program to maximize students' future opportunities to be successful and initiate transformational actions in their future life. Facilitating a great number of students in a specific-tailor-made program like this indeed necessitates among others effective management of the teachers and continuous coordination with the stakeholders.

3.3 Interview with the Material Developers

Applying similar technique with the head of LTC, interview with the material developers involved a team of ICE teachers; each level is organized by two teachers having more than 5 years of teaching experience. Given data from need analysis, syllabus of ESP classes, and formulation of ICE objectives, they are assigned to design or revise teaching material from the process of finding resources and adopting/adapting the contents to presenting the material in the module. Nana and Tata (pseudonyms) as the material designer of level 3 elaborated that: "before we design the material, I tried to recall our

memory about what has been stated earlier as the objectives of this program and what they students should be capable of upon passing the whole program."

They added: "when we are not well informed on this... at least we are trying to make the material relevant with their needs and the challenges of today world".

To do so, they conducted online research to gather sources of audio, video, texts, and other media for the material. Nana continues: "we try to find what is the trend at that time, and as I always keep up with such info, we include topics such as digital literacy, sustainable development goals, and so on as we realize that these students will have to initiate change in real life". For Ella (pseudonym) as the material developer for level 2, being a material designer for this level necessitates her to continue what has been initiated by the previous ones: "...I was assigned to replace the previous one... and to continue the designed material mostly focusing speaking and presenting ideas in English and writing...." Similar with previous findings, she admitted: " Possibly there was program guidance given for the previous material developer, but we did not receive so we tried to get information from the previous syllabus" On this concern, formulated differently, Tyas as one of the designers of level 1 narrated: "for level one there has been compiled material from commercial textbooks... all the skills are integrated but the material has lots of language focus and grammar exercises... well level 1 should have more elaboration of language use through explicit grammar teaching". It could be concluded that ICE materials have not been designed in accordance with principles of Research and Development theories. Previous practices, personal perception and communal agreement on what are considered efficient make up the procedures of material design of this program.

3.4 Teacher Reflection

To analyse teachers' reflective writing, a critical Incident Technique (CIT) was conducted to identify their conception of the three-postmethod parameters and pedagogical practice. Butterfield et al. (2005) claim the technique as a widely used qualitative research method and recognized as an effective exploratory and investigative tool. The term 'critical incident' has been defined quite differently. Woods (1993) conceptualize it as vivid happenings that are considered significant or memorable. Schon (1987) proposes it as a problematic situation that presents itself as a unique case and promotes reflection. The steps of Critical Incident Analysis in this study covered firstly identification of general patterns and themes of representation of particularity, practicality, and possibility. Then, clustering the three types of postmethod parameters was conducted.

3.4.1. Parameter of Particularity

Shinta (pseudonym) narrated how the class characteristics and uniqueness could be attributed by their majors. "My classes are so dynamic and enthusiastic in their own way. One class is very active in discussion; the other could be very active in doing the task given. At least that's what I've learned; each class in ICE is always unique and personal!" Different from Shinta, Shella (pseudonym) observed challenges teaching the lowest level as it dealt with problems of motivation and willingness to communicate.

"The challenges I face mostly this semester is to persuade them to communicate mostly in English and keep trying though not 100% perfect, and to write in English well (with or

without translate tools)". Handling a class comprising competent students, Joice (pseudonym) acknowledged the necessity of addressing students' positive behaviour in the class. "Generally, the students that I'm teaching this semester are high-skilled. It means that the students can easily catch on instructions and materials. However, I do feel like they need to learn how to appreciate the teacher and also their friends when they are presenting in front of the class."

3.4.2. Parameter of Practicality

As this parameter deals with connection between theory and practice, Shanty (pseudonym) theorized factors causing students failure in ICE. "Repetition (being a repeater) does not always deal with their disabilities in learning English. In many cases it is related to their lack of intention in learning English, their manner in the classroom, their attitude in appreciating the process, their abilities to work individually or in group, and even their time management in learning English.

Providing scaffolding elaborating the use of L1 and language skills was practiced by Nandita (a pseudonym). "They are very active in discussion and share their opinion, although it can be denied that it's still a struggle to make them speak in English. Since the task is mostly writing, I usually let them to describe it orally in Bahasa Indonesia first in order to brainstorm and organize idea. Then, they should compose it in English in a form of paragraph writing. Dealing with fun classroom atmosphere, Dina (pseudonym) states her notion of motivating students, which might be different from students' conception of fun class. "...fun activities might work in making students learn, but there is also a drawback there. There were times when students said, "Why don't we play Kahoot until the end of the session?". There, I realized that students love games, but whether or not they learn is unclear"

3.4.3. Parameter of Possibility

Dina (pseudonym) highlights how students appreciate what they had been learned in the class, not merely in terms of task completion but also perspective shift in nature preservation. "It was great to know that those students who felt challenged felt satisfied with their result. It was also great to read that there were students who said that they learned how to be more responsible towards the nature".

Shanty emphasized the importance of character education and instilment of process orientation by firstly winning the students' trust. "I explain to them that as their 'mother', I treat myself not only as a teacher who has to deliver a particular material to them, but also as an educator who needs to educate them about the importance of having a good process and building good character traits along the way".

Raisa (pseudonym) acknowledged her practice of growth mindset and inclusivity development: "I think I have facilitated students to practice growth mindset and I have developed inclusivity in the classroom".

As could be inferred from the above samples of reflection, some teachers have practiced the parameters of possibility allowing them to facilitate learners' self-actualization to be agents of transformation in their lives. Among others these could be achieved by making the appropriate choice of texts and tasks (sample 1), building closer

relationship with students (sample 2), and nurturing students' self-potential development (sample 3).

3.5 Students' Evaluation of ICE

To gain student Evaluation of ICE, a questionnaire adapted from Student Evaluation of Educational Quality (SEEQ) by Marsh (1982) was adapted, as its reliability reached $r = 0.88$ to 0.97 which is consistent with the result of reliability test in this study $r = 0.933$.

This questionnaire covered scales of learning (4 items), teacher (5 items), teaching (4 items), interaction and class dynamics (4 items), teacher-student rapport (3 items), relevance of class activities (4 items), tests (3 items), material (2 items). Other items assessed students' motivation, confidence of passing the program, and comparison with other courses.

Distributed using Stratified Random Sampling to four hundred and twenty (420) students, 390 (38.31%) were valid. In respect to the participant variation and population representativeness, male participants were 177 (45.38%) and females were 213 (54.61%). Whereas composition based on the ICE levels were proportional (level 1=134 (34.35%), level 2= 121 (31.02%); level 3= 135 (34.61%). Dealing with the student majors, the samples were representative with relatively in balanced proportion in respect to their student body; Information Technology (48); Information System (34); Architecture (46); Product Design (11); Biotechnology (36); Medical (25); Management (110); and Accounting (80). The data analysis indicated students' agreement of the program quality (mean > 4) in all components of the instrument. The highest mean was achieved on students' evaluation of the quality of teacher performance, teaching, and teacher-student interaction.

Table 1: Descriptive Data of SEEQ (Marsh, 1982)

		LEARNING	TEACHER	TEACHING	INTER-ACTION	TEACHER-RAPPORT	CLASS ACTIVITY	TEST	TEACHING MATERIAL
N	Valid	390	390	390	390	389	390	390	390
	Missing	0	0	0	0	1	0	0	0
Mean		4.0455	4.3908	4.1103	4.1615	4.2879	4.0000	4.0786	4.0795
Std. Dev		.58830	.47163	.51739	.49632	.54934	.53448	.57817	.60106
Percentiles	25	3.7500	4.0000	3.7500	3.7500	4.0000	3.7500	3.6667	4.0000
	50	4.0000	4.4000	4.0000	4.2500	4.3333	4.0000	4.0000	4.0000
	75	4.5000	4.8000	4.5000	4.5000	4.6667	4.2500	4.4167	4.5000

Further analysis of students' feedbacks through open ended questions demonstrated 9 areas of concerns related to the program quality. Classroom material had the most comments (90 items), followed by students overall-positive attitudes towards the program (54 items), and program conducts (43 items). The least chosen items were negative comments (3 items).

To be specific on the student evaluation of teaching material, groups of 5 themes are identified that they voice:

1. creative, fun, and engaging activities, for instance:

"I think the material has been quite good and its delivery is interesting".

"More games or icebreaking activities when students are sleepy or not enthusiastic".

2. more practical language use, for instance: "It would be more interesting if we have fieldtrips to have conversation with foreigners". "There should be more practice and interaction, not just theories".

3. perception to be useful and relevant material, for instance: "There should be material of memorizing vocabularies to increase our English skills". "Please add more grammar, pronounce, structure"

4: adjust with students' level of competence and interests, for instance: "Please use more Bahasa Indonesia as I find it difficult to understand teacher who uses English most of the time". "Adjust the material with our level of competence".

5: proportion of language skill practice "Please have more balanced proportion between listening, writing, and speaking". "More conversation would be better".

These results portray students' acceptance and positive beliefs in all aspects of SEEQ program quality. Moreover, students' perception of classroom material is reflected in this finding. More elaboration of the aspects of material choice, delivery, and presentation could be inferred from the five themes. These data pose essential element of the need analysis in this study.

4. The Development Phase

The situational results of need analysis in this study exemplified that the university values and vision provide philosophical foundation towards objective achievement and conduct of the language policy in the university. The students' English competence expectedly facilitates the achievement of serving the pluralistic world as new breeds of professional along with their integrity and obedience to God. The need to be competent in English in their discipline and professional work enhancement, therefore, facilitated through the institutional English language policy that necessitate elective English program, ESP courses, and ICE as their matriculation program.

The need analysis of this study furthermore suggests that the proposed model of material development based on the elaboration of data and theories situate the pedagogy principles, and parameters of postmethod to specific and contextualized needs of ICE program. Then, macrostrategies of postmethod (Kumaravadivelu, 1994; 2003) are elaborated to empower teachers with skills, knowledge, and autonomy to deal with specific situation and context classroom. As broad and logical guidelines, each macrostrategy is directed towards more practical and operational strategies by microstrategies (Kumaravadivelu 1994). Moreover, in the achievement of students' social transformation along with the development of their English competence, as mandated by as postmethod pedagogy, teachers themselves should ponder 3 parameters of particularity, practicality, and possibility in instruction. To understand the language teaching and specific context and situation specific to implementation of macro and microstrategies, teachers need to develop capacity to be strategic thinkers, exploratory researchers, and transformative teachers by means five modules of Knowing, Analysing, Recognizing, Doing, and Seeing (KARDS). Elaboration of this results could be inferred in the following figure.

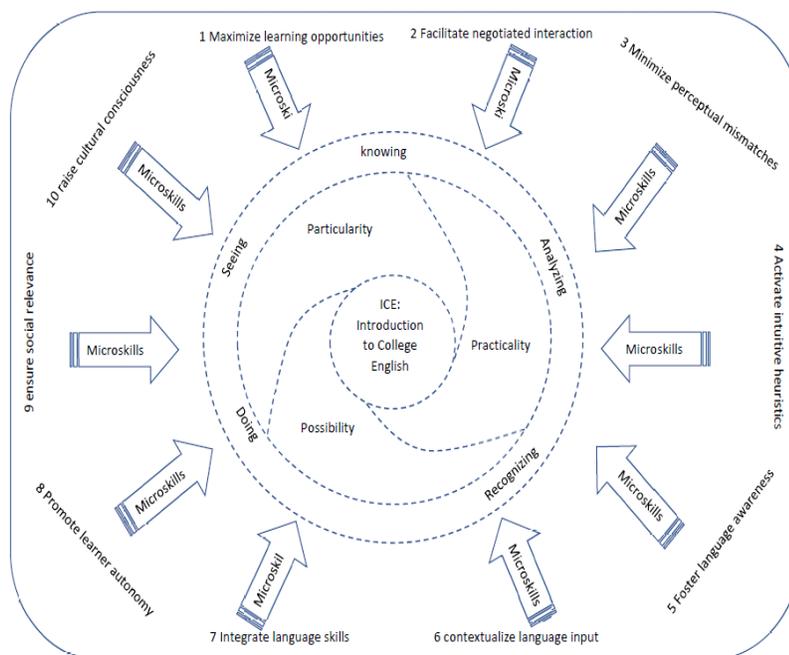


Figure 1: Model Recommendation of Material Design

The development of teaching materials by themselves facilitates the attainment of postmethod pedagogy parameters, operationally by administering the macro-microstrategies. Similarly, the choices of texts and media, the design of tasks and activities, and the instructional planning to their classroom delivery supposedly be designed to go along with these principles. As postmethod pedagogy allows combination of methods, as long as its parameters and principled pragmatism are maintained, principles of several methods are taken, for instance merging techniques of task-based language teaching (Nunan, 2004; Willis, 1996) with audiolingual method (Richards & Rodgers, 2001) framed within the perspective of four strands of language instruction (Nation, 1996; Nation and Mcalister, 2010). Meanwhile, teaching of language forms is seen as providing scaffolding or facilitating learners' language production. Conception of grammar merely as a prescribed rule detached from its context of use and relevance with speakers' L1 conception could be categorized as violation of not only particularity parameters of the pedagogy, but also possibility. Illich's (1981) in Pennycook (1989) that the presentation of first Castilian grammar to Queen Isabella at the end of 15th century was urged for the new rules to be a tool to colonize both for users within the kingdom and those in the new lands which later resulted in limitation of more diversified texts to use.

Moreover, in attempt to design classroom material within the frameworks and principles of postmethod pedagogy, adopting material from commercial textbook is not suggested since all textbooks are not culturally neutral as Tomlinson (2008) calls ELT textbooks' ethnocentricity in terms of content; assumptions about 'the best ways to learn'; and the ways in which non-Western cultures are positioned 'superficially and insensitively' (p. 320). In the development of classroom material, therefore, information related to students' majors and results of SAT (Student Admission Test) are used as the baseline to choose topics and texts in the class. Regarding to complexity of variables

making up students' particularity in the whole population of ICE students, variation of teachers' profiles and styles, and other factors related to these combinations, the material is not designed to provide prescribed classroom activities and tasks from the introduction of the class to the closing. Instead, statements of lesson objectives combine the representation of the university core values and more specific ones related to the language skill practiced. Related to the levelling of competence between the levels of ICE, more studies are required. Therefore, the grading competence and objectives of ICE levels is in accordance with the existing one.

5. Plan for Program Implementation and Validation

The next phase of this model design is implementation and validation. Action Research (AR) is opted as it empowers teachers to find their answers to their own questions (Burns, 2010), its nature is suitable for the implementation of R&D studies (Madya, 2018), and its fundamental relation between theory and practice (Madya, 2018). Moreover, the central idea of AR is to intervene in a deliberate way in the problematic situation to bring about changes and, for the purpose of this study to bring improvements in practice (Burns, 2010). Aside from these rationale, Winter (1996) in Madya (2018) proposes that the principles of AR implementation are: 1) Reflexive critique; 2) Dialectical critique; 3) Collaborative Resource; 4) Risk; 5) Plural Structure; and 6) Theory, Practice, Transformation. Most of these are relevant with postmethod principles and parameters, indicating relevance of this research method as the framework of implementation and evaluation in this study.

Operationally, the last phase of this study is planned to follow Kemmis and McTaggart (1988) prescription of four broad phases in two cycles with few adjustments relevant with the nature of this model enactment:

1. Planning

In this phase issue and develop a plan of action to implement the model of program design and bring about improvements in the two cycles of the AR. As suggested by Burns (2010), consideration of the types of investigation possible within the realities and constraints of ICE program and its instructional situation is elaborated with the potential improvements to make. Classes and collaborators should be carefully selected for this purpose.

2. Action

The instructional model is implemented in this stage as has been planned over an agreed period of time. As postmethod pedagogy in this study offers new ways of language instructions, AR encourages the collaborators of this study to question their assumptions about the current situation and plan alternative methods of doing things.

3. Observation

This phase involves collaborators and researchers in observing systematically the effects of the action and documenting the context, actions and opinions of those involved. It is a data collection phase where various techniques could be used to collect information about what is happening.

4. Reflection

At this stage, evaluation and description of the action are conducted to make sense of what has happened after the implementation of the postmethod principles and to

understand any challenges and problems more clearly. It is suggested that further cycles of AR could be done to improve the situation.

6. Conclusion

This study has elaborated a case of need analysis prior to program development by gathering qualitative and quantitative data from the institution, its language policy, teachers, material developer, and students to devise contextual-situational elements for the needs of the program development and evaluation. Further studies could be directed towards investigating the effectiveness of this program to address the need of language instruction as regulated by the institutional language policy.

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PROJECT HEARTS: Shared Engagement and Accountability Towards Responsive Education among Multi-Stakeholders Address in the New Normal Challenges

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Abstract. This study focused on addressing the new normal challenges through shared engagement and accountability towards responsive education among multi-stakeholders as Project HEARTS served as an intervention program for the school year 2020-2021. The participants of the study were the 1273 total population of Bayabas Elementary School during the school year 2020-2021. Mixed method research was used in the study. Findings revealed based on the preliminary and second stages of intervention that 97% of the participants are actively engaged in the module distribution while 93% of them are positively accountable in terms of module retrieval meanwhile parents-teachers engagements show that the majority of the participants or 98% of them are very supportive when it comes to school PTC activities. From teachers' perspectives towards learners and parent's support during the conduct of modular learning, the results revealed that there is positive support from the participants when it comes to modular distant learning with the cumulative mean score of 4.1 and described as agreed. It implied that most of the parents are very active when they are empowered and shared responsibility for their children learning progress since building supportive relationships is a key to the learner's learning growth. Participants preferred thematic "OPS" output which means open communication is important with the stakeholders, parents as helping learning partners, and social responsibility with the parents. It implied that multi-stakeholder engagement and accountability positively leads to responsive education amidst the challenges in the new normal. It shows that project HEARTS significantly improved stakeholders' active involvement that empowered them for their child learning development. Therefore, the school should strengthen shared responsibilities for learners learning progress and establish supportive relationships in which it is the key in bridging the gap to ensure learning growth that provides an efficient learning environment.

Keywords: Engagement and Accountability, Multi-Stakeholders, Responsive Education

1 Introduction

One of the drastic changes in the world in terms of public health issues is the birth of the Novel Coronavirus SARS-COV-2. The fight against its threats has received massive global attention on how to eradicate the continual increase of growing infections (Guo,

et.al.,2020). As the World Health Organization (WHO) declared that the COVID-19 is already a pandemic, the Philippines was placed in a state of calamity under Presidential Proclamation No. 929 s. 2020 by the mid-semester in March 2020, which the pandemic has spread massive threats to people's lives.

The education sector in the Philippines is among the greatest casualties of the COVID-19 pandemic. According to UNESCO (2020) stated that schools have become the most vulnerable when it comes to health safety and security among school personnel, learners, parents, and other stakeholders that leads to the temporary closure of schools to contain the spread of the virus and reduce infections. However, the educational complexities presented by the prolonged closure of learning institutions have had varied impacts on educational stakeholders particularly the basic education faces challenges related to learning modalities. It shows that the marginalized learners are more deprived of education and expected to face more learning difficulties due to less access to learning resources that leads to social disadvantages.

Under DepEd Order No.012 (2020), which is the "Adoption of the Basic Education Learning Continuity Plan for School Year 2020-2021 in the light of COVID-19 Public Health Emergency" the department mandated to employed multiple learning delivery modalities to ensure the continued provision of learning opportunities to its learners while protecting the health and safety of both its personnel and learners. Aligned with RA No. 11494 otherwise known as the "Bayanihan to Recover as One Act" the implementation of the BE-LCP demands a holistic approach and a stronger partnership among schools, parents, guardians, and other community stakeholders to provide adequate access to the learning process of the learners at home. Therefore, it is the sole responsibility of the community stakeholders to take action to properly address and minimize the said issues.

However, the researchers have observed that many parents have negative inclinations towards the new learning setups especially when it comes to their children's health safety. Based on the preliminary enrollment last August 2020 there are 1037 partially enrolled learners, which shows a slight decrease in the previous school year's total enrollment of 1288. It shows that 251 young school learners are out of school due to several reasons with their parents regarding the new normal education. Hence, there is a need for the school to locate and track these learners as it is considered as one of the contributors that greatly affects the school performance. This observation is likewise similar to circumstances among parents in the region as viewed by fellow teachers. Not only they do strongly oppose their children's right to education but some parents struggle to handle the demand of teaching their child at home since they don't have the luxury of time in learning due to several factors of uncertainties.

Recognizing the essential role of the multi-stakeholders in response to education, the researchers have considered the assumption that strengthened and build up a good relationship with the multi-stakeholders through shared engagement and accountability has an improvement to learners learning outcomes and develop a highly responsive learning environment to bridge the gap in the new normal. This is then the context by which this paper is conceived.

2. Methodology

This study focused on addressing the new normal challenges through shared engagement and accountability towards responsive education among multi-

stakeholders as Project HEARTS that served as an intervention program for the school year 2020-2021 through mixed methods.

2.1 Research Design

The study made use of a mixed-method research design. Indeed, the purpose was to determine the shared responsibility among multi-stakeholders in Bayabas Elementary School in response to the challenges in the new normal. The teacher-researchers employed the structured survey questionnaire meanwhile scoring procedure was used to organize the data of the study was Likert ratings to determine the teachers' perspectives towards the participants' support during the conduct of modular learning. However, the selected participants underwent an in-depth interview to contextualize the data and also find out its improvement towards the implementation of the Project HEARTS.

2.2 Sampling Procedure

The participants of the study were the 1273 total population of Bayabas Elementary School during the school year 2020-2021. Meanwhile, random sampling was used for the select participants during the conduct of the in-depth interviews based on the new normal learning challenges.

2.3 Ethical Issues

With the approval from the school principal to conduct the study, teachers-researchers secured consent forms before the conduct of the intervention. Hence, the agreement made is highly recommended for confidentiality purposes to ensure participants active participation as a contributor to the conduct of the study.

2.4 Data Analysis

The obtained data underwent simple statistical treatment such as frequency, mean and standard deviation to determine the improvement of the program. Hence, the results of the focus group discussion (FG's) and in-depth interviews were subjected to qualitative data analysis. However, the intervention program was made to address new normal challenges through shared engagement and accountability among multi-stakeholders.

3. Results and Discussion

3.1 Level of Engagement and Accountability among Multi-stakeholders in terms of;

- A. Modules distribution
- B. Modules retrieval
- C. Parents- Teachers Conference

Table. 1 Level of Engagement and Accountability among Multi-stakeholders

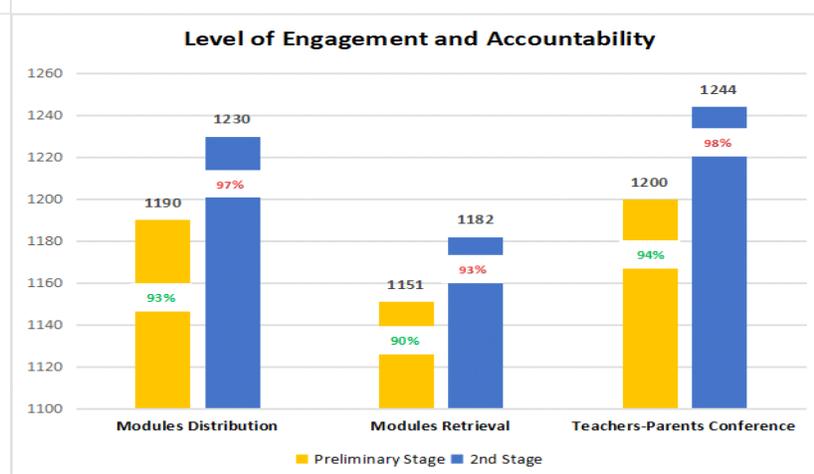


Table 1 shows the level of engagement and accountability among stakeholders, the results revealed that out of the total population of 1273 there is a slight increase of the participants' involvement based on the second stage than the preliminary stage of participation. Hence, the data demonstrated that 97% of the participants are actively engaged in the module distribution while 93% of them are positively accountable in terms of module retrieval. It shows that some parents/guardians took the time and gave priority to their child's school activities while other parents could not make it on the time scheduled due to some personal matters or else work-related conflicts. It implied that those parents/guardians who weren't able to participate in the said designated distributions took extra effort just to inform the teachers ahead of time of the delay of their responsibilities. Therefore, classroom advisers need to be very considerate just to make sure that all learners are given equal opportunities to develop in the new normal learning scenario.

Meanwhile, parents-teachers engagements show that the majority of the participants, or 98% of them are very supportive when it comes to school PTC activities. It shows that they give ample time and grab the opportunity to discuss their child's academic progress. However, community stakeholders took the time to reach out and extend a helping hand to those parents who have difficulties attending the said school program and activities and utilized the said platform for collaborative sharing especially in bridging the gap to those learners who need technical assistance. Therefore, parents, teachers, and community stakeholders need to work collaboratively to address learner's needs, especially in modular distance learning.

Taking into consideration that many parents had to work from home while taking care of their children and served as the learning partners at home. It implied that the pandemic has significantly brought sudden changes and disrupted education provision but on the other hand it provides transforming opportunities in the new ways of teaching and learning with the families and its important roles to ensure learning growth and well being of a child (UNICEF,2020). Therefore, ensuring learners' learning development is possible at this new normal as long as with the support and cooperation of the multi-stakeholders.

3.2 What are teachers' perspectives towards learners' and parents' support during the conduct of modular learning?

Table 2. Teachers Perspectives towards Learners and Parents Support in the Modular Learning

Teachers Perspectives	Mean	Description
1. Guardian is responsible and serves as the learning tutor to their child at home.	4.1	Agree
2. Guardian is having a hard time during the distribution and retrieval of modules due to their work schedules.	4.5	Strongly Agree
3. Guardian is very lenient to assist their child with school homework at home.	3.6	Agree
4. Guardian is more responsive and comfortable using a variety of communication such as Facebook, call & text, etc.	4.4	Strongly Agree
5. Guardian provides extra effort when it comes to their child's school-related activities.	4.1	Agree
6. Guardian is more active and eagerly to participate because they had a good relationship with the teacher.	4.7	Strongly Agree
7. Guardian who is passive and does not regularly attend school-related activities are prone to negative criticisms.	3.6	Agree
8. Guardian who is having difficulties in teaching at home needs more technical assistance from the teacher.	4.2	Strongly Agree
Total	4.1	Agree

Legends: Strongly Agree (4.30 – 5.00), Agree (3.50 – 4.20), Undecided (2.70 – 3.40), Disagree (1.90 – 2.60), Strongly Disagree (1.00 – 1.80)

Table 2 shows teacher's perspectives towards learners and parent's support during the conduct of modular learning, the results revealed that there is positive support from the participants when it comes to modular distant learning with the cumulative mean score of 4. 1 and described as agree. It implied that most of the parents are very active when they are empowered and shared responsibility for their children learning progress since building supportive relationships is a key to the learner's learning growth (De Villa, J., & Manalo, F.,2021).

3.3 What are Multi-Stakeholders Learning Experiences when Exposed to the Intervention? Based on the focus group discussion, participants preferred that the conducted intervention improved multi-stakeholders engagement and accountability towards education through the following OPS output.

Open communication is important with the stakeholders. Most of the participants stated that “mas malipayon kami na matagaan ug higayon na maipadayag ang amoang mga gipangbati alang sa mga kinahanglanon para sa mga bata ug sa eskwelahan isip tabang namo mga ginikanan” in which building open communication empowers stakeholders to actively support school programs.

On the other hand, most of the parents professed that “mas kampanti me magpatisipar kay adunay kami maayong relasyon sa amoang magtutudlo busa dili lisod ang pagabag namo sa pagtulun.an sa amoang mga anak”. It shows that building open communication and relationship can positively encourage stakeholders to seek help in the teacher when they need technical assistance for their child at home.

Parents as helping learning partners. Most of the participants claimed that “mas na sabtan namo ang trabaho sa usa ka maestra ilabina karung panahona busa andam me motabang motudlo sa amoang mga anak sa amoang balay para masigurado na mapadayon ang ilang mga pageskwela” in which participants prefer that they

appreciate teachers' efforts in this new normal as they served as the learning tutor at home.

Meanwhile, most of the parents revealed that “mas kampaniti me magpatisipar kung adunay kami nasinati na kalisod kay andam motabang kanamo ang maestra sa pagpasabot niini”. It shows teachers are very approachable that's why parents did not hesitate to ask for technical assistance when they encounter some learning difficulties.

Social responsibility with the parents. Most of the participants reiterated that “mas natagaan ug dako na pagtaggad namo ang panghimangno sa eskwelahan sa ka importansya niini alang sa kaayuhan sa amoang mga bata karung panahona ug andam kami mohatag ug dako na higayon sumala sa ka busy sa amoang trabaho.” It shows that parents are very responsive to education and gives extra effort for the welfare of their child as long as they are empowered with their social responsibility.

4. Conclusion

From the findings, this study concludes that multi-stakeholders engagement and accountability positively leads to responsive education amidst the challenges in the new normal. It shows that project HEARTS significantly improved multi-stakeholders active involvement that empowered them for their child's learning development. Therefore, the school should strengthen shared responsibilities for learners learning progress and establish supportive relationships in which it is the key in bridging the gap to ensure learning growth that provides an efficient learning environment.

5. Recommendations

May the school administrators, educators, and multi-stakeholders strengthened the social support system in which it is a secret key that provides a sufficient distance learning environment that is responsive towards learner's learning growth.

May the school administrators and other community leaders adopt the intervention to address the new normal challenges.

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Students' Utilization of the University of The East-Caloocan Basic Education Department Library: Basis for an Action Plan

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Abstract. The main purpose of this descriptive action research is to determine the attitudes, opinions and perceptions of the Junior and Senior High School students with regards to the services, facilities and resources rendered by the University of the East-Caloocan Elementary and High School Department Library during the First Semester of School Year 2017-2018. For the findings, there were around a total of sixty (60) student-respondents that took a researcher made questionnaire, Majority of the student-respondents sometimes visited the Library. Most of the student-respondents still go to the library to read, borrow and look for printed materials, however, newspapers are not being read by the respondents, making them unaware of the latest issues regarding their community and country in general. Majority of the student-respondent still used books and text books. However, maps, graphs, magazine, periodicals, CD, Films and Documentaries are not fully utilized by the student-respondents. Research and library skills of the students need to be developed by regularly visiting the library to organize thoughts and facts, summarize and classify information through the use of books and electronic media such as the internet, EBSCO and electronic journals.

Keywords: Library Services, Attitudes, Perception, Basic Education, Students.

I. INTRODUCTION

Libraries play a great and significant role in developing and sustaining reading habits by providing a variety of reading material without taxing the students too much in terms of money and space. However, the role of libraries and librarians in developing and sustaining reading habits cannot be over stated. The librarian leads the students from a few into many other books which supplement and augment knowledge contained in textbooks and class notes. They should be given books and audiovisual material in the form of CDs, VCDs and DVD. They should be given books as gifts. Students should be taken to libraries during library orientation. Lack of functional school libraries can obstruct students from acquiring a library use habit at an early age. However, it is essential that reading and library habits must be acquired by students from an early stage. Students are especially expected to have acquired reading habits and developed skills in effective library usage. Library is a place in which literary and artistic materials, such as books, periodicals, newspapers, pamphlets, prints, records, and tapes are kept for reading, reference or lending. School libraries are learning laboratories where information, technology, and inquiry come together in a dynamic that resonates with 21st century learners.

This study serves as the output of a semester-long discussion of the subject Administration of Student Services under the supervision of Dr. Madeline Co during the First Semester of School Year 2017-2018. The researcher would also like to find out how satisfied our High School students with the delivery of its programs and services since most of them are very busy with their studies and activities. And there is still yet no research regarding the student satisfaction level of the UE-Caloocan Basic Education Department Library that includes the Senior High School, although there were only two studies to wit: "An Evaluation of the Collection of University of the East-Caloocan Elementary Library", a Project Study by Annabelle Gatmin submitted to the UE Graduate School in October 2013 and "Nature and Use of Reference Collections and Services of the Librarians of the University of the East-Caloocan High School Library", a Project Study by Rosa Gumata submitted to the UE Graduate School in October 2013 that deals with the matter. The first deals with evaluation of the collection based on the Elementary students as respondents and the second deals with the Junior High School students as their respondents respectively.

II. METHOD

Research Design

The **descriptive-normative survey** method of research was used in this study. Since the study was concerned with the appraisal of library resources and services the High School Department of the University of the East – Caloocan, the instrument used to collect data was a questionnaire for the student-respondents.

Participants

The study involved randomly selected sixty (60) student-respondents enrolled in the Junior and Senior High School program for the First Semester of School 2017-2018. They were divided into six grades with 10 students per grade namely Grade 7, 8, 9 and 10 for the Junior High School and Grades 11 and 12 for the Senior High School. The researcher also divided the 10 student-respondents per grade level with 5 female and 5 male students to answer the questionnaire.

Research Tool

The instrument used was a survey questionnaire. The questionnaire was made after reading, studying and researching samples of questionnaires from related studies. The Questionnaire is made up of two parts namely: **Part 1**. Personal Information of the Respondents (Name is Optional, while Grade Level and Gender was taken) and Attitudes towards frequency of visit, main purpose of going and materials used or borrow and **Part 2**. A 5-point Likert Scale to determine their perception on Library Services and Facilities consisting of 5-Strongly Agree, 4-Agree, 3-Disagree, 2-Strongly Agree and 1-Don't Know

Data Gathering Procedures

Phase I (Preparatory Phase)

1. As the Researcher's Professor in the Graduate School, Dr. Madeline Co tasked the class to do an action research about measuring the satisfaction level of any student services the researcher deemed to do it as it will for part of the partial requirements in the course. The researcher then considered the following: Guidance and Counseling Services, Student Discipline and Library Services.

2. The Researcher find Guidance and Counseling and Student Discipline to be difficult due to confidentiality issues about student records, but since the UE-Caloocan Basic Education Department has yet to yield a research regarding about the evaluation of Junior and Senior High School, the researcher chose the evaluation of the Library Services

3. The researcher wrote a letter to the Assistant Director of the Library thru the Basic Education Department Senior Head Librarian and was able to secure a permission.

Phase II (Administration of the Survey)

The Researcher was able to conduct the survey on August 29-September 8, 2017. The researcher was gladly assisted by the teachers after explaining the purpose of the study. The Researcher was able to collect all questionnaires even if it was a busy time for submission of other paper works (lesson plans and periodical examinations), attending meetings, studying every Saturday at the UE Graduate School, invitations as speaker in other schools, and doing other teacher-related duties, as UE-Caloocan Junior High School Faculty Club and attending personal matters.

Profile of the Respondents

Table 1.1

Personal Profile of the Respondents

Frequency Distribution of Respondents Based on Sampling Done

Grade Level	Questionnaires Distributed	Returned Questionnaires	Percentage (%)
Grade 7	10	10	100
Grade 8	10	10	100
Grade 9	10	10	100
Grade 10	10	10	100
Grade 11	10	10	100
Grade 12	10	10	100
Total	60	60	100

The table above shows that there are equal of ten (10) student-respondents each per grade level for the Junior High School (Grade 7, 8, 9, 10) and Senior High School (Grades 11 and 12), thus giving a total of sixty (60) student-respondents. This was simply due to the sampling done by the researcher based on the number of respondents per year level.

Table 1.2

Frequency Distribution Regarding Gender of the Respondents

Gender	Frequency	Percentage
Male	30	50%
Female	30	50%
Total	60	100.00%

The above table shows that there are equal female and male respondents with the same frequency of fifty (50) percent. This was simply due to the sampling done by the researcher based on the number of females and males per section

Statistical Treatment

Descriptive Statistics were used to analyze the data on this study. It was used to summarize about the student-respondents grade level and gender. Frequency distribution was used to show the total number of responses given. In the interpretation of the questionnaires, the Likert Scale shall be used where in 5 means Strongly Agree, 4 means Agree, 3 means Strongly Disagree, 2 means Disagree and 1 means Don't Know.

Likert Scale	Rating	Interpretation
5	Strongly Agree	4.20-5.00
4	Agree	3.40-4.19
3	Strongly Disagree	2.60-3.39
2	Disagree	1.80-2.59
1	Don't Know	1.00-1.79

III. RESULTS

This chapter includes the process of breaking up the whole study into its constituent parts of categories according to specific questions under the statement of the problem. This brings into focus the essential features of the study.

1. What is the attitude of the High School Students on the services of the UE-Caloocan Basic Education Library in terms of:

- a. **Frequency of Visit**
- b. **Main Purpose of Going**
- c. **Materials that they Used or Borrow**

Table 2.1
Attitudes towards Frequency of Visit

Frequency of Visit	Number of Responses
Always	7
Very Often	7
Sometimes	30
When Necessary	16
TOTAL	60

Table 2.1 shows that the majority of the student-respondents **SOMETIMES** visited the Library. The result agrees with findings of Burks and Ducat (1993) that only a small percentage of students made regular and frequent visits to the school library, with

a greater proportion of them being more advanced students. It also shows that the respondents visited the Library when necessary, as stated.

Table 2.2
Attitudes towards Main Purpose of Going to the Library

Main Purpose of Going	Number of Responses
Look for References	12
Borrow books and reading materials	14
Reading notes and reviewing	22
Surfing the internet	3
Meeting friends and classmates	7
Attend programs	2
TOTAL	60

Table 2.2 shows that most of the student-respondent still go to the library to read, borrow and look for printed materials. This implies that the High School students still prefer to utilize the Library as their main source of books, references, reviewing their lessons and other reading materials. As Burks and Ducat (1993) stated, library use was conditioned by the emphasis teachers placed on the use of library resources to complete assignments, which were primarily textbook oriented.

Table 2.3
Attitudes towards Materials Always Used or Borrowed

Materials Always Used or Borrowed	Number of Responses
Books and Textbooks	46
Newspapers	0
Internet/Electronic Journals	10
Maps and Graphs	2
Magazines and Periodicals	1
CD, Films and Documentaries	1
TOTAL	60

Table 2.3 show that majority of the student-respondent still used books and textbooks thereby, the Library needs to upgrade and procure more of this as references. However, newspapers are not being read by the respondent, making them unaware of the latest issues regarding their community and country in general. There were a lot of maps, graphs, magazine, periodicals, CD, Films and Documentaries being purchased for the last years that could be a very good source and alternative for learning but were not fully utilized by the student-respondents even it is available in the Library.

- 2. What is the perceptions of the High School Students on the status of the UE-Caloocan EHSD Library in terms of:**
 - a. Services of the Library Staff**
 - b. Library Attributes**
 - c. Facilities Offered**

Table 2.4
Perception towards Services of Library Staff

Services of Library Staff	Mean	Interpretation
Provides prompt/fast assistance.	4.12	Agree
Have skills/knowledge related to their profession	4.12	Agree
Courteous and Respectful	4.12	Agree
Neat and professional-looking	4.53	Strongly Agree
Staff are sufficient to address our needs	4.15	Agree
TOTAL MEAN	4.21	Strongly Agree

Table 2.4 shows that the student-respondents sees the Librarians and Staff as neat and professional looking. Generally, they have high regards towards the level of professionalism as regards to the delivery of services.

Table 2.5
Perception towards
Library Attributes

Library Attributes	Mean	Interpretation
Easily locate materials needed.	4.07	Agree
Resources are current and up to date.	4.17	Agree
Library Orientation programs are helpful.	3.97	Agree
Library schedule is convenient.	3.93	Agree
Library location is accessible.	4.48	Strongly Agree
TOTAL MEAN	4.12	Agree

Table 2.5 shows that the location of the UE-Caloocan EHSD Library is very accessible and convenient to the High School students. Even if the Library is situated in the 5th Floor of the Lucio C. Tan Building, it is very accessible through the stairs and elevators and just in front of the Multi-Purpose Hall 3. The Library is also being utilized for venue of some Department and University-sponsored activities. Structurally, the Library is arranged in an orderly manner, it its very industrial in nature, spacious, resources are current and up to date, has two floors and air-conditioned.

Table 2.6
Perception towards Facilities Offered

Facilities Offered	Mean	Interpretation
Seating Capacity	4.23	Strongly Disagree
Computers/Internet Service	3.97	Agree
Lighting	4.58	Strongly Disagree
Cleanliness	4.75	Strongly Disagree
Security Measures	4.13	Agree
TOTAL MEAN	4.33	Strongly Agree

Table 2.6 shows that the facilities of the UE-Caloocan EHSD Library encouraged student-respondents to really utilize its usage. A well-organized library with a rich collection will only be functional if its users know how to use the library and its resources effectively. It is

beneficial to library patrons to access the needed information through the use of modern technologies. This agrees with the study of the Ministry of Education and National Library of New Zealand (2003), the school library is a central hub supporting every student and staff member, as well as parents.

IV. DISCUSSION

Adequate knowledge of library service, information access, and need of users and usage pattern of users are the vital things for developing library collections, services and facilities within schools to meet user's information needs.

The significant findings of the study are as follows:

- 1.1** There is an equal distribution on the number of respondents. There is 5 male and 5 female student-respondents each per grade level for the Junior High School (Grade 7, 8, 9, 10) and Senior High School (Grades 11 and 12), thus giving a total of sixty (60) student-respondents.
- 1.2** Majority of the student-respondents sometimes visited the Library.
- 1.3** Most of the student-respondents still go to the library to read, borrow and look for printed materials, however, newspapers are not being read by the respondent, making them unaware of the latest issues regarding their community and country in general.
- 1.4** Majority of the student-respondent still used books and textbooks.
- 1.5** Maps, graphs, magazine, periodicals, CD, Films and Documentaries are not fully utilized by the student-respondents.
- 1.6** Student-respondent are not keen on utilizing the EBSCO or other internet-based learning
- 1.7** Library orientation program is helpful to the students.
- 1.8** Student-respondent are not keen on attending Library-sponsored program.
- 1.9** Student-respondent have high regards towards the level of professionalism as well as the delivery of library services.
- 1.10** Location of the UE-Caloocan EHSD Library is very accessible and convenient to the High School students

Conclusion

Based on the results of the study, the researcher found out that the High School Students' needs to be encouraged students to visit the Library more often and needs to be exposed and be informed of other library resources particularly maps, globes, charts, socio-demographic graphs, and other visual aids. The Basic Education Library needs to encourage students more to use the internet/e-journals aside from typical internet-based learning wherein orientation activities can be very helpful. Students has a very positive attitude towards the Library Staff because of being neat and professional looking. The teacher/librarian should organize orientation, films, exhibitions, and displays to create awareness of the library service to users. The library should take steps to enhance its collections and resources with material for both staff and students that meets their educational needs and developments and augments classroom teachings and should provide adequate recreational and information materials to arouse student interest

Recommendations

In the light of the findings and conclusions of the study, the following recommendations were made that the UE-Caloocan Basic Education Library should enhance its collection, resources and activities to encourage more ways for the High School students to visit the Library more often.

It should also continuously upgrade personal and professional development for the librarian and staff for it this will greatly benefit the students and the University as well. An Audio-Visual Room be constructed for students to view films and documentaries. Research and library skills of the students need to be developed by regularly visiting the library to organize thoughts and facts, summarize and classify information through the use of books and electronic media such as the internet, EBSCO and other electronic journals. An action plan based on the findings of the study should be implemented on the basis of available plans, adjustments on strategic planning workshops, source of funding and cooperation of the officers and persons concerned to avoid conflict and to resolve the differences on the re-implementation of the programs and a duplication of the same study is encouraged covering a bigger sample population.

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3Ms Model Classroom: Make-up, Make Way, and Manage Classrooms in Times of COVID – 19

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Abstract. The current distance learning due to COVID-19 reshapes the description of classrooms. This strategy is developed in response to – how a classroom should look like when students are not yet around. The time of setback during COVID-19 has come to the point of revamping the classrooms. This strategy generally aims to make up and make way for aesthetic classrooms. Moreover, it is purpose to make over the classrooms in response to current health situation and prepare anytime students will return in school. The class advisers are considered participants in this study. A tool was also developed for school-based classroom monitoring with the following criteria: a.) information dissemination and management, b.) health and wellness, and waste management, c.) disaster risk prevention and management, and d.) teacher as a classroom manager. Both quantitative and qualitative data are interpreted. Results of this study suggest that 3Ms Classroom Model is effective in improving the designs and structure of classrooms. It is supported by the entire faculty as shown by the improvement in all year levels. Teachers are empowered as classroom managers as they find comfort in their classrooms amidst the learning challenge. Continuous improvement of the strategy should be explored since it is a good practice.

Keywords: classroom management, model classroom, school facilities

1. Introduction

School facilities or educational facilities refers to school properties of school such as grounds, buildings, and various learning facilities. One of the major prerequisites for a school to stand is its safe, secured, and satisfactory educational facilities. Conversely, substandard facilities are one of the bases for non-use of the school facility and worse closure of a school.

Also known as physical facilities mainly include classrooms. The classroom does not just provide learning shelter for learners but also speaks what a school is. For instance, the number of classrooms is usually proportionate to the number of learners in that school. Most importantly, safe, secured, adequate, and satisfactory classrooms support the teaching and learning processes. Ultimately, a well-organized classroom improves the quality of basic education.

To be effective, classroom design classrooms should reflect the educational processes and activities that take place in them. Hence, the classroom shall be suitably structured and decorated to make the surroundings of students conducive to learning.

The materials for structuring and decorating shall be selected based on their educational value providing opportunities for class discussions. Likewise, its cleanliness and orderliness must be maintained, the fact that this is vital aspect contributing to the educational growth of the pupils/students.

The contexts and standards on how school facilities such as classrooms should look like are also well-stipulated in the DepEd Educational Facilities Manual of 2010. The child-friendly school system also supports the guidelines. Furthermore, the 2013 Regional Memorandum of DepEd Region 10 was issued as a direction for teachers on structuring and decorating classrooms.

However, school facilities should be responsive as well to the changes in the teaching methods and school organization. Take into consideration the current condition – the COVID-19 pandemic. How should classrooms look like? Does classroom structure still apply even when learners are at home?

It is understood that the aesthetic environment – affects learning and even mood. An aesthetical design environment impacts one's feeling. How a person feels affects mindset and attitude towards learning (<https://bit.ly/37ys0EB>). And so, a person who feels happy learns more. For some, the structure and design of classrooms make learner comes and stays in school.

The facility's aesthetic quality is usually described as from extreme ugliness to an exciting beauty range based on the DepEd Educational Facilities Manual of 2010. At the least, for a classroom, it shall be pleasant. It also appeals inviting and exciting. Almost a year without students inside the school; with only teachers and the cabinets and chairs. Add to that the adjustment experience – empty room yet more busy teachers in the new normal education setting. Could it be more comforting and relaxing to be in a well-structured and designed room?

Previous research shows model classrooms based on learning strategies, student engagements in learning, teacher's methodology, and the likes. A study by Bergsmann, et al. (2013) found multiple mediator variables for the classroom model. Significant associations among classroom structure to mastery goal orientation, metacognitive learning strategies, and classroom climate were concluded. This implies that multiple associations to learning variables are associated with classroom structure. Specifically, past studies on teaching and learning processes.

However, in the time of COVID-19, remodeling classrooms are indeed necessary. It covers more than just the context of teaching and learning strategies. Classroom structuring as associated with classroom climate (Bergsmann et al., 2013), may further denote a positive association between classroom design and atmosphere. It is for this context

that this action research was crafted. Where in this study, the concept of model classroom pertains to 3Ms Model. It stands for make-up and makes way model classroom. Make-up or make-over of one's classroom to make it more comfortable and flexible to the current situation. The standard posters in front of the chalkboard, updated bulletin boards, reading corners, and many other structures. But this time, adding the health protocols to be observed in the classroom. A make-over of a classroom now signifies a COVID-free room where the teacher is safe enough to stay.

Make way model classroom – any time soon or far enough when students are already allowed to return to school; classrooms are ready. This strategy of model classroom prepares the learning environment of students.

Hence, the current concept of model classroom advocates learner-centered classroom even students are not yet around. It is also one way of promoting a positive atmosphere within the school community despite the learning challenge this time of the pandemic. Overall, the general goal of the study is to always make the learning environment – classrooms ready.

2. Methodology

The class advisers are considered participants in this study. This applies in the first phase of implementation. There 34 sections for School Year 2020-21.

To begin the implementation, grade-level leaders convene for a meeting. One of the results of the meeting is a strategy that will help and motivate the teachers to restructure their classrooms. A committee was created for the implementation of the Model Classroom of the Week. Non-advisers in particular serves as the evaluators of the classrooms.

A tool was also developed for school-based classroom monitoring. It was aligned to the Regional Memorandum number 10 series of 2013. The 3Ms classroom is composed of the following criteria: a.) information dissemination and management, b.) health and wellness, and waste management, c.) disaster risk prevention and management, and d.) teacher as a classroom manager.

The tool is contextualized according to the strengths and areas for improvement of the school. It is also open for revision as the implementation progress – part of continuous improvement as well. The Weekly Model Classroom is awarded every school flag-raising ceremony.

Both qualitative and quantitative data were gathered, analyzed, and interpreted. The results of the weekly evaluation are the main source of quantitative data. While the meetings and feedbacking were utilized for qualitative data. Quantitative data were summarized using frequency and percentage. The test of difference was done using Paired T-Test Analysis.

During the entire duration of the research, the researchers followed intellectual honesty. All communications such as procedures and reporting of data were not misinterpreted. Health proper protocols were also observed. The practice of confidentiality was also strictly maintained. Responsible research reporting was also observed proper citation and acknowledgment were done.

3. Methodology

3.1 On Pre-Implementation and Implementation Phase Summary of Results

The following figure shows the summary of the results of the pre-implementation and implementation phase of the model. The effectiveness of the strategy can be gleaned through the difference in the graph presented with 100 as the total points.

All grade levels have shown improvement in their classroom structuring. The implementation of the 3Ms Model Classroom is actively participated by all class advisers. This is supported by their increased score in the evaluation. Hence, not a single room was not restructured and improved during the implementation of the program.

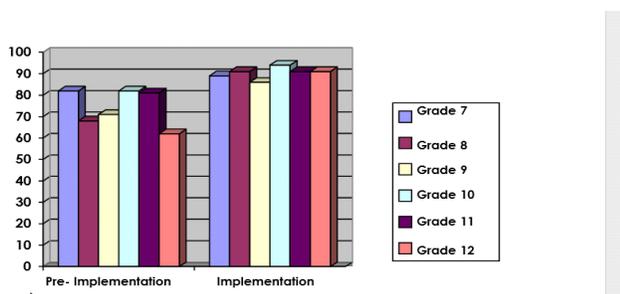


Figure 1. Comparative Summary Results of the Pre-Implementation and Implementation

The unity of all the teachers also signifies their positive motivation to do the challenge. Focused group discussions with the grade leaders and department chairmen have a common indicator found, the strategy has a positive impact on teacher's sense of responsibility. This result is supported by the recent study of Matteucci, M.C., Guglielmi, D., and Lauer mann, F. (2017) who reported that a high level of work engagement is a result of teacher's sense of responsibility. This further explains the result of this study, where all grade levels show positive engagement in structuring their classrooms as part of their teacher's responsibility.

The strategy becomes not just a simple school contest, but a good avenue for teachers to express themselves and find their place of comfort amid challenges in the delivery of learning in times of COVID-19. The strategy is also a chance for teachers to find solutions and provisions amidst pandemic.

As proven by previous research that classroom design has a sense of the impact on learner's engagement and even holistically (Barrett, Davies, Zhang, & Barrett, 2015), the result of this current study reveals a new direction that teachers as person who stays in the classroom also need this positive effect. This is evident with the shared expressions of teachers, "It feels good to finally see my classroom in order." "I just express myself as I restructure my classroom." "My perspective and attitude towards my profession have changed positively." Henceforth, restructuring and redesigning make way also for teachers to continually become inspired despite learning delivery challenges.

Results imply that classroom structures and designs indeed improve with the implementation of the Model. The strategy covers improvements in information dissemination and management, health and wellness, and waste management, disaster risk prevention and management, and teacher as a classroom manager.

Qualitative data through picture documentation displayed improvement in these areas of classroom structuring. The following themes are briefly described.

Information Dissemination and Management. The usual bulletin board in classrooms are the announcements, information on child protection, drugs, and pregnancy prevention. However, in times of COVID 19, it becomes usual to see posted health protocols.

Health and Wellness. Aside from emergency kits placed in each classroom, health and wellness essentials are also updated. During the implementation of the strategy, checking of face masks, face shields, alcohol, footbath, hand gloves, and protective suits are checked. Even the arrangement of seats is in observance of proper health protocols.

Waste Management. Without the presence of learners in the classrooms, who is expected to maintain the cleanliness of the room? Aside from trash bins that are labeled for proper waste segregation, it is not a surprise to see teachers cleaning the windows and sweeping the rooms and even corridors.

Disaster Risk Reduction Management. Signages for evacuation in case of emergency are posted near the door. During the implementation, any structures in the classroom that may cause risk – fire or accidents are identified and properly addressed.

Teacher as Classroom Manager. One of the roles of a teacher is a manager. A classroom manager covers not only the teaching-learning process but structuring the learning environment as well. Through this strategy, the teachers are greatly empowered to do the extra mile to make-over and make way for a more conducive learning place in times of pandemic.

Indeed, comparative results of the pre-implementation and implementation phase of the 3Ms Model Classroom strategy both in quantitative and qualitative analysis, show notable improvements in the classrooms. The comparative analysis is also done to support the effectiveness of the strategy.

3.2 Effectivity of the 3Ms Classroom Model

The table shows the result of the T-Test analysis of the evaluation of the classroom during the pre-implementation and implementation phase of the program. The mean of the pre-implementation is 74.17 while the implementation phase is 90.33.

Table 1. Results of t-Test for Two Means of Model Classroom Evaluation

	Pre- Implementation	Implementation
Mean	74.17	90.33
Variance	70.17	7.07
Observations	6	6
Pearson Correlation	0.23	
Hypothesized Mean Difference	0	
df	5	
t Stat	-4.84	
P(T<=t) one-tail	0.00	
t Critical one-tail	2.02	
P(T<=t) two-tail	0.00	
t Critical two-tail	2.57	

*p-value<0.05

The increase of scores supports that there is indeed an improvement in classroom structuring. The effectivity of the model is tested by comparing means. For the results, looking at the P(T<=t) two-tail, which is the p-value (0.00), it is less than the significant level of 0.05. This result supports that there is a significant difference in the evaluation points of the pre-implementation and implementation phases of the program. Furthermore, since the mean scores show a significant increase, it further implies that the program led to positive improvement of classrooms.

The concept 3Ms Model make-up and make way for classrooms to be ready in case of limited face-to-face. Classrooms are more comfortable and flexible to the current situation. A makeover of a classroom now signifies a COVID-free room where the teacher is safe enough to stay. Make way model classroom – any time soon or far enough when students are already allowed to return to school; classrooms are ready. This strategy of model classroom prepares the learning environment of students.

4. Conclusions and Recommendations

The implication of the results of this study, suggests that physical management of classrooms is not only a responsibility to fulfill. It also promotes a sense of responsibility among teachers as managers. Moreover, the impact of a good aesthetically design room promotes positive impact. In this time of COVID-19, indeed a well-structured room is notonly physically ready but also promotes an atmosphere of safety and comfort.

Since the 3Ms Model Classroom Strategy is found to be effective, it is recommended to adopt the strategy as a continuous program of the school. Laboratories should be included in the next cycle especially since the school offers a science curriculum for Junior High School and STEM for Senior High School. Furthermore, the tool shall be improved by using a validated-indicators and a scoring scale. This will also make the tool accessible to other schools that opt to adopt the strategy may do so.

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The ABCs of Teachers' Roles: An Affirmation

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Abstract.

Study objectives were: to raise the self-esteem of 395 respondents via ranking of their level of agreement with teachers' 52 roles (two per letter of the alphabet) with students, colleagues, families & friends when they felt despondent & helpless from uncertain academic & personal futures due to COVID-19; to arrive at their description of the Teacher in the New Normal who is: Encouraging & Engaging; Focused & Friendly; Beloved & Big hearted; Grateful & Growing; Just & Joyful; Hardworking & Honest; Inspiring and Interactive; Reflective & Respectful; Safe & Structured; Determined & Diligent; Kind & Knowledgeable; Modern & Motivating; Adventurous & Aware; Noble & Nurturing; Prepared & Professional; Tactful & Thoughtful; Collaborative & Creative; and Valuable & Versatile; and to recommend that Teacher-Educators pay attention to enhancing the following qualities of pre-service teachers to ensure that Teachers in the New Normal will: not be Underappreciated since they are Unselfish; are Xenodochial & be an X-factor; be Organized & Original; be Whimsical & Willing; be Yielding & Youthful; and Zany & Zealous. These new teachers' skills set are now part of the Prof Ed course syllabi I am handling this SY 20-21, with these qualities focus of capability building exercises.

Keywords: K-12 Teachers' Self-Esteem, 52 Teachers' Roles, Self-Affirmation of Teachers' Roles, COVID-19 Pandemic, and Description of the Teacher in the New Normal.

1. Introduction

The Department of Education (DepEd) suspended classes in March 10, 2020, in all K-12 levels in public schools in response to the COVID-19 pandemic, though final examinations were not yet done based on the school calendar for SY 2019-2020. Learners reported to schools on scheduled dates for final exams. Graduation exercises for Kindergarten, Grade 6, and Grades 10 and 12 were put on hold until further notice or suspended totally. Teachers came to school only for learner-related matters and were required to finish the tasks for the closing of the school year (DepEd Memo No. 42, s. 2020).

Department Order No. 011, s. 2020 or the "Revised Guidelines on Alternative Work Arrangements during the period of State of National Emergency" was issued in June 15, 2020 providing for work arrangements & support mechanisms for teaching & nonteaching personnel in all DepEd public elementary and secondary schools & community learning centers, though all personnel were to be available during working hours, & maximize their time spent in discharge of duties and responsibilities.

As a Teacher Educator, I did my best to keep in touch with my graduate students, relating & feeling their frustrations. When asked, my students said they felt anxious and withdrawn; their personal and families' health foremost in their minds, as well as that of their learners, relatives & friends. Especially for the private school sector, future economic uncertainty was another major problem. Many teachers were depressed, and felt oppressed by daily pronouncements that were sometimes too horrible to believe, and further repressed by many negative memes on social media about the non-utility value of teachers during the pandemic. They reported feeling hopeless, undervalued and undermined by the suspension of schools until further notice, since what is a teacher without learners? Negativity tended to strip their self-esteem & self-confidence at a time when their families needed them most.

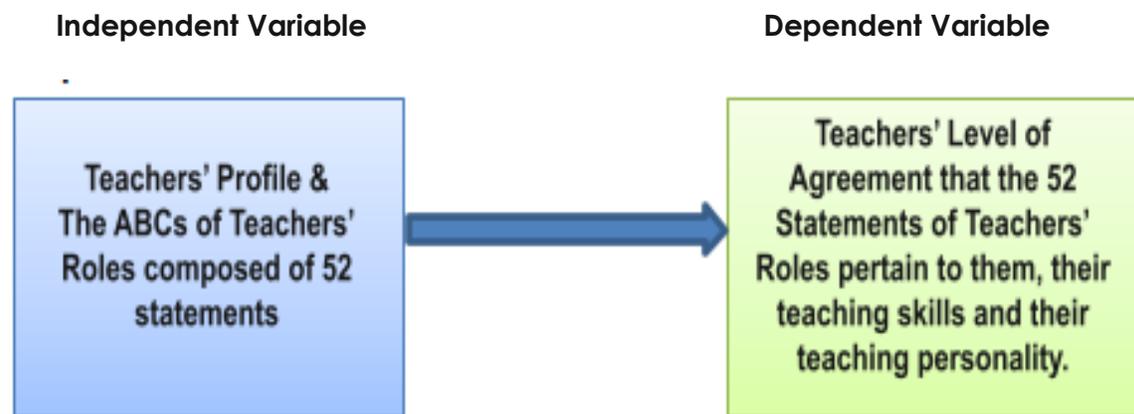
It was at this time that this action research was conceived, with its three (3) objectives of: raising the self-esteem of the teachers undertaking the survey that while they were reading this alphabetical listing of the roles of a teacher, they would be self-reflecting, making use of positive affirmations to remember just who they are in the lives of their students. Affirmations, especially positive affirmations, are invaluable in raising a person's self-esteem (Raj, 2017). The power of education is in its potential transformative effects on individuals (Gibbs, 2005). As defined by the Oxford Dictionary, a person's role is the function or position that he/she is expected to have in an organization, in society or in a relationship. Therefore teachers are expected to be role models of positivity in and out of the classroom so that students are better able to emulate them. My second objective was to arrive at an empirical description of the Teacher in the New Normal from study results; & to finally to be able to recommend that Teacher-Educators pay attention to enhancing the weaker qualities of pre-service teachers that the respondents would provide. As output I aimed to include these new teachers' skills set to the Prof Ed course syllabi I will be handling in SY 20-21.

1.1 Theoretical and Conceptual Framework

The Self-Affirmation Theory (SAT) by Claude Steele (2020) states that when people's self-image has been threatened, they are motivated to affirm the integrity of the self. They feel a need to restore their self-esteem to maintain a positive self-image to stop the negativity that threatens their internal balance. Through the unique prediction that the SAT makes, people who experience a specific self-threat can overcome its unpleasantness by affirming an equally important aspect of the self which can work to restore their self-esteem even without resolving the specific threat. Currently, the teachers may be beset by negative feelings due to the pandemic. By their consciously reading & answering the 52 statements of a teacher's role in the research instrument, & stating their agreement that such statements pertain to them & by rating their self-reflection, they may remember the very important aspect of their role as teachers thereby restoring their self-esteem and making them feel more positive in responding to the requirements of DepEd and the nation's youth.

Conceptual Framework

The study makes use of the Independent Variable – Dependent Variable relationship paradigm to portray the direction of the study, as shown here:



The research process looked at the teachers' profile & the ABCs of Teachers' Roles described within 52 statements; these were the Independent Variables which may or may not affect the Dependent Variables composed of the teacher-respondents' level of agreement that these 52 statements pertain to them, their teaching skills and their teaching personality.

1.2 Statement of the Problem

Specifically, this research sought inputs to:

- 1.2.1 What are the Teachers' Profile; and
- 1.2.2 What are their Level of Agreement with the 52 Roles of a Teacher?

2. Methodology

This descriptive quantitative research made use of google forms answered randomly by my students and their colleagues (N=395). The forms were posted in two batches: April 9 to 18, 2020 among teachers in PUP Sto. Tomas, Batangas, & May 11 to 20, 2020 among PUP Manila and Quezon City teachers. I scheduled 20 days of actual floating of the instrument with ten days for each research locale, aimed for 350-400 respondents, & withdrew the instrument from the web in May 20, 2020. The teachers were asked if they wanted to be part of a study on Teachers' Roles; upon their agreement, they were instructed to download the google form, key in their responses, & forward it to as many of their colleagues as possible within the time frame assigned for each research locale. I did not attempt to derive any relationship between the two batches of respondents or the research locales.

The 2-part survey instrument consisted of: the profile questions, and 52 statements, two statements per letter of the alphabet, and the respondents rated their level of agreement that the statement pertained to themselves, their teaching skills & teaching personality. These statements were adapted from Meador (2018). A scale of 4 (All of the time) to 1 (At no time) was used to arrive at the mean of the respondents' level of agreement. Comparison of means was used for each statement, with average mean for each letter of the alphabet ranked to arrive at the new placement of affirmative statements, and an empirical description of the New Normal Teacher.

The review of the literature was conducted through Google Scholar & ERIC wherein relevance was the only criteria for citations & referencing. The mean and overall mean as computed were interpreted with validation from related literature gathered.

3. Results and Discussion

Table 1 shows the profile of my 43 Male and 351 Female respondents (N=391). Ages ranged mostly (132) in 21-30 with the least (13) being aged 61-70. Most (274) handle Grades 1 to 6, with public teachers (369) dominating. Teacher 1 positions were for 212 teachers though 2 principals also took the survey. Most number of years in teaching is 1-5 years for 147 respondents through 8 said they have been teaching for 31-35 years. Most (194) were BEED graduates; it must be noted that there were 105 MA graduates, 5 with doctoral units & with doctorate graduates 9.

Table 1. Profile of Respondents

Sex	Age Range	Grade Levels Handled	Type of School	Current Position at the School	Number of Years Teaching	Highest Education Attainment
43 Males	21-30 = 132	35 Kinder 274 G1-G6	Public = 369	Teacher 1 = 212	1-5yrs = 147	194 BEED 17 BSED
351 Females	31-40 = 144 41-50 = 73 51-60 = 33 61-70 = 13	37 G7-G10 19 G11-12 10 Tertiary 2 ALS 1 Multigrade 3 SPED 4 Admin	Private = 26	Teacher 2 = 47 Teacher 3 = 98 Master T1 = 19 Master T2 = 5 Admin Staff = 3 Principal = 2 Faculty = 9	6-10yrs = 90 11-15yrs = 76 16-20yrs = 37 21-25yrs = 25 26-30yrs = 12 31-35yrs = 8	65 MA Units 105 MA Grad Units 5 Doctoral Units 9 Doctorate
Total Number of Respondents = 395						

Tables per letter of the alphabet (N=26) were aggregated showing the 395 respondents' level of agreement with the 52 affirmation statements pertaining to themselves as teachers, to their teaching skills & their teaching personality "**All of the Time**" with the overall mean of **3.60**. Table 2 below is a summary of the 26 tables which answers my Objective 2 to arrive at an empirical description of the Teacher in the New Normal.

Table 2. Ten (10) Highest Rated Affirmation Statements

Statements	Mean	Overall Mean	Rank
<p>The Teacher is Encouraging. I talk my students up. I tell them they can do it when others tell them they can't. Our mindset is positive. We can accomplish anything.</p> <p>The Teacher is Engaging. I keep my students focused. I have attention grabbers built into every lesson. Once I have them hooked, I know they can and will learn.</p>	3.68 3.58	3.63 All of the time.	1
<p>The Teacher is Focused. I have professional goals that I am determined to achieve. I know where I need to get my students, and I have a plan to get them there.</p> <p>The Teacher is Friendly. I greet everyone with a smile. I laugh and joke with my students so that they know I am not a robot. I am approachable and easy to talk to.</p>	3.57 3.62	3.60 All of the time.	2
<p>The Teacher is Beloved. I am leaving behind a legacy. The lessons I teach my students will last a lifetime. My students think highly of me and will cherish the time we were able to spend together.</p> <p>The Teacher is Big-Hearted. I know that many of my students fight personal battles that I cannot begin to fathom. I love my students and wish I could give each of them the life they deserve.</p>	3.53 3.66	3.59 All of the time.	3
<p>The Teacher is Grateful. I do not take for granted the opportunities and tasks that are bestowed on me. It is an honor to work with the students I am given.</p> <p>The Teacher is Growing. I understand my strengths and weaknesses. I am continuously seeking out valuable professional development opportunities to help me improve.</p>	3.64 3.54	3.59 All of the time.	
<p>The Teacher is Just. I am always fair. I carefully weigh any decision taking the "who and what" into consideration. No decision is taken lightly.</p> <p>The Teacher is Joyful. I celebrate with my students when they are successful. This is not limited to my classroom. I believe that all successes should be celebrated jubilantly.</p>	3.60 3.58	3.59 All of the time	
<p>The Teacher is Hardworking. I often arrive early and stay late. I am continuously thinking about how to improve and conduct regular research to find tools to do my job better.</p> <p>The Teacher is Honest. I do not hide who I am or what I do. I answer each question truthfully and own up to mistakes when I make them.</p>	3.50 3.66	3.58 All of the time.	4
<p>The Teacher is Inspiring. I want to be an example for my students. I want them to become a better person as a result of the interactions that we have together.</p>	3.64 3.45	3.55 All of the time.	

<p>The Teacher is Interactive. My classroom is student centered. We conduct regular hands-on, exploratory activities. My students take ownership in projects and lessons.</p>			5
<p>The Teacher is Reflective. I am constantly evaluating my approach and making changes. I reflect on what I can change to make improvements on a daily basis.</p> <p>The Teacher is Respectful. I am constantly evaluating my approach and making changes. I reflect on what I can change to make improvements on a daily basis.</p>	3.45 3.66	3.55 All of the time.	
<p>The Teacher is Safe. Nothing matters to me more than keeping my students safe. I will lay down my own life if necessary. My classroom is a safe haven for all of my students.</p> <p>The Teacher is Structured. I have well-established expectations and procedures. I hold my students accountable for their actions. Distractions are kept to a minimum.</p>	3.65 3.45	3.55 All of the time.	6
<p>The Teacher is Determined. I will not give up on any student. I will find a way to make a difference. I am relentless in my pursuit of educating every student.</p> <p>The Teacher is Diligent. I leave no stone unturned. If there is a way, I will find it. I love every phase of my job and attack each aspect ferociously.</p>	3.59 3.49	3.54 All of the time.	
<p>The Teacher is Kind. I help my students when I know they need assistance. I check on them when they are sick and let them know I care when they lose someone.</p> <p>The Teacher is Knowledgeable. I am a content expert. I understand how to use instructional strategies, regularly incorporate technology, and differentiate instruction to reach every student.</p>	3.60 3.41	3.50 All of the time.	7

In contrast the five (5) **Lowest Rated** affirmation statements are seen in summary Table 3 on the following page; it answers my Objective 3 which is the empirical results of perceived weaker qualities of teachers that must be addressed by Teacher Education Institutions.

Table 3. Five (5) Lowest Rated Affirmation Statements

Statements	Mean	Overall Mean	Rank
<p>The Teacher is Underappreciated. There are people who discount me because I teach. There are people who do not like me because I teach. My students know my value, and that is what matters to me.</p>	3.05	3.22 Most of the time.	5

<p>The Teacher is Unselfish. I am willing to go the extra mile for my students. I arrive early or stay late to tutor struggling students. I make sacrifices so that my students have every opportunity to be successful.</p>	3.40		
<p>The Teacher is Xenodochial. I welcome anyone to visit my classroom. I want to be an integral part of my community and as such I talk to any constituent that I can about our school and education.</p> <p>The Teacher is an X Factor. I welcome anyone to visit my classroom. I want to be an integral part of my community and as such I talk to any constituent that I can about our school and education.</p>	3.29 3.18	3.23 Most of the time.	4
<p>The Teacher is Organized. Everything in my classroom has a place. Organization aids with preparation and ultimately keeps the flow of the classroom going in the right direction.</p> <p>The Teacher is Original. There is only one of me. I am unique. My classroom and my style are my own creation. What I do cannot be duplicated.</p>	3.35 3.32	3.34 Most of the time.	3
<p>The Teacher is Whimsical. I take advantage of teachable moments. I understand that some of the most memorable lessons will be those that I did not plan to teach.</p> <p>The Teacher is Willing. I will do whatever it takes to ensure that each student is successful. I am willing to find the answers to the tough questions. I am flexible in my approach.</p>	3.22 3.54	3.38 All of the time.	2
<p>The Teacher is Yielding. I understand that some things are beyond my control. There will be occasional interruptions, and I must be flexible and go with the flow.</p> <p>The Teacher is Youthful. I may get older, but seeing me students learn fuels me. It excites me and invigorates me when a student has an "AHA!" moment.</p>	3.30 3.47	3.39 All of the time.	1
<p>The Teacher is Zany. I am willing to make crazy deals with my students if it motivates them. I am not afraid to get my hands dirty if it pushes my students to put more effort into learning.</p> <p>The Teacher is Zealous. I am passionate about teaching and learning. No one can question my commitment to the profession or to my students.</p>	3.35 3.41	3.39 All of the time.	

4. Conclusions

Based on these affirmations, herein presented is the new definition of the characteristics of the New Normal Teacher:

The Teacher in the New Normal is: Encouraging & Engaging; Focused & Friendly; Beloved & Big hearted; Grateful & Growing; Just & Joyful; Hardworking & Honest; Inspiring and Interactive; Reflective & Respectful; Safe & Structured; Determined & Diligent; Kind & Knowledgeable; Modern & Motivating; Adventurous & Aware; Noble & Nurturing;

Prepared & Professional; Tactful & Thoughtful; Collaborative & Creative; and Valuable & Versatile.

5. Recommendations:

May I recommended that Teacher Education Institutions (TEIs) replicate this study & possibly add to the alphabetical affirmations to use in their instruction & discussion with their pre-service teachers.

It is also recommended that Teacher-Educators should pay attention to enhancing the following qualities in the pre-service teachers we are handling and continue to:

Ensure that the Teachers in the New Normal will not be Underappreciated since they are Unselfish; continue to be Xenodochial & maintain being an X-factor; be Organized & Original; be Whmsical & Willing; be Yielding & Youthful; and Zany & Zealous

These new teachers' skills set are now part of the Prof Ed course syllabi I am handling this SY 20-21, with these qualities the focus of capability building exercises.

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Development and Usefulness of Modules for Technical Assistance for TA Providers in SDO Antipolo and SDO Quezon Province

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Abstract. The success of learning depends on the quality of teachers. Classroom observations are conducted to evaluate and ensure teachers' quality. Technical assistance (TA) provided by school mentors plays a vital role to ensure teachers' effective performance of their duties. The Results-based Performance Management System (RPMS) was released in 2018, yet there is still a need to capacitate TA providers in coaching. Hence, this study was conceived and designed to develop and determine the usefulness of developed modules for TA in (1) Applying Range of Teaching Strategies, (2) Positive and Non-violent Discipline, (3) Developmentally Sequenced Teaching-and-Learning Processes, and (4) Addressing Learning Goals through Teaching-and-Learning Resources. Using descriptive research method, 30 to 50 TA providers in SDOs Antipolo and Quezon were purposively selected to assess the modules' usefulness in terms of the organization of ideas, content, and activity used; possible TA for critical episodes; recommendations for further enhancement; and insights and themes. Results reveal that all modules are useful and participants gave it a go with proposed solutions on important critical episodes. This research poses significance to the public education sector especially to address the demands of New Normal education and share what TA providers can do to assist teachers in teaching.

Keywords: PPST, RPMS, COT, technical assistance, critical episodes

1 Introduction

The success of learning depends on the quality of teachers and the quality of teachers depends on the quality of the Technical Assistance (TA) provided to them. TA is an active process that requires specific skills to professionally help, guide, and support teachers toward the attainment of quality, accessible, and liberating education for all. The Philippine Professional Standards for Teachers (PPST) (DO 42, s. 2017) articulates what constitutes teacher quality through well-defined domains, strands, and indicators that provide measures of professional learning, competent practice and effective engagement across teachers' career stages" (RPMS Manual, 2018). Thus, to capacitate TA providers (school heads, master teachers, and head teachers), SDOs Antipolo and Quezon rolled out the PPST policies and guidelines with emphasis on the conduct of Classroom Observations (CO) using the CO Tools (COT) which have become the gauge to evaluate and improve teachers' performance.

COT has 9 indicators that teachers should demonstrate in SY 2018-2019. Four of which are the focus of this research: (1) Applies a range of teaching strategies; (2) Manages learner's behavior constructively; (3) Plans, manages and implements developmentally sequenced teaching and learning processes; and (4) Selects, develops, organizes, and uses appropriate teaching-and-learning resources.

This research aimed to address actual issues and confusion on the provision of TA encountered by TA providers through the developed modules on the aforementioned indicators and evaluate them as clarificatory guides in TA provision anchored on different legal and theoretical underpinnings that constitute effective TA strategies to improve instructional supervision via classroom observation.

1.1 Teaching Strategies (COT Indicator 3)

Teaching strategies refer "to the structure, system, methods, techniques, procedures and processes that a teacher uses during instruction" (PPST Resource Package Module 3). These are strategies the teacher employs to assist student learning. 2C-2I-IR (Constructivist, Collaborative, Integrative, Inquiry-Based, and Reflective Learning) Pedagogical Approaches serve as a guide to all curriculum planners, designers, leaders and most especially the teachers of DepEd Region IV-A (RM 10, s, 2015) in delivering effective and appropriate teaching strategies.

Guided by these pedagogical approaches in teaching strategies, progressive education advocated by John Dewey supports this context. Progressive education is essentially a view of education that emphasizes the need to learn by doing. Dewey (1938) believed that human beings learn through a 'hands-on' approach. His view of the classroom was deeply rooted in democratic ideals, which promoted equal voice among all participants in the learning experience. Taylor (2005) shared Dewey's vision that it is the responsibility of educators to create cultural changes within the classroom that are accepted, internalized, and acted on by students. The said approaches and theories imply that one strategy is not enough; thus, teachers can take advantage of other contexts in the teaching and learning process.

1.2 Positive Discipline (COT Indicator 5)

The use of positive and non-violent discipline is essential in establishing a classroom environment conducive to learning and delivering what is in the curriculum. Positive and non-violent discipline teaches learners problem solving skills, gives them choices, encourages them to weigh the natural and logical consequences of their actions, and develops positive life skills using follow-through (Eaton, 1997). Adler and Dreikurs (1920) pointed out democratic approaches emphasize and encourage the learners to develop their capabilities to exercise power to come up with a reasoned decision while collaborating with peers or more knowledgeable individuals.

Dreikurs (1920) stated that discipline should revolve around mutual respect, this gives the learners the idea to act in a constructive manner because it stimulates their social interest. He added that all humans need to belong and feel part of a group, with mutual respect and democratic approaches. Rosenthal and Jacobsen (1968) came up with the

concept which they call The Pygmalion Effect, which shows how teacher expectations influence their pupils' performance.

1.3 Developmentally Sequenced Teaching-and-Learning Processes (COT Indicator 7)

Developmentally sequenced teaching-and-learning processes refer “to the order of activities that keeps learners engaged in the content and purposely scaffolds learners towards achieving the lesson’s objectives by maximizing allotted class time” (PPST Resource Package: Module 7). The use of the Daily Lesson Log (DLL) or the Detailed Lesson Plan (DLP) enables the teacher to guide, mentor, and support learners in developing and assessing their learning across the curriculum (DO 42, s. 2016). Eggen and Kauchak (1996) mentioned that teachers plan their lessons for three purposes: emotional security, organization, and reflection. Tyler as cited in Eggen and Kauchak (1996) introduced the linear rational model, which presents how preparation of a lesson is done. Omrod (2008) identifies the composition of a typical lesson plan. These include the following parts: (1) The goal(s) or objective(s); (2) Instructional materials; (3) instructional strategies; and (4) assessment method(s).

Preparing a lesson plan enables the teacher to teach the skills that students need to learn and develop. However, not all skills are easy to teach. Omrod (2008) suggested that when teachers need to teach complex topics or skills, they have to conduct a task analysis, identifying the specific knowledge and behaviors necessary to master the subject matter in question.

1.4 Addressing Learning Goals through TLRs (COT Indicator 8)

The selection of appropriate TLRs plays an important role in curriculum delivery. TLRs set the foundation for developing deeper engagement of learners that will facilitate the completion of knowledge and skills (Bunga, et al., 2016). In 21st century classrooms, these go along with the integration of technology aligned to the context and locale of the learners. Dale’s (1969) Cone of Experience shows 11 stages starting from concrete experiences at the bottom of the cone then becomes more and more abstract as it reaches the peak of the cone implying that the arrangement is not based on its difficulty, but rather based on abstraction and on the number of senses involved. Similarly, Bruner’s (1966) Three Learning Modes of a person’s experiences: (1) Enactive; (2) Iconic; (3) Symbolic. Both theories imply that if teachers can take advantage of other media, the teaching and learning process could be more effective through high abstraction of a lesson. Furthermore, to improve class instruction, meaningful connection among integration of technology, content knowledge, and pedagogy are needed as suggested by the Technological Pedagogical Content Knowledge (TPCK) model.

1.5 The Gaps and Direction of Research

During the School Year 2018-2019, various critical incidents were observed using STAR observations. The researchers noticed that teachers shared the same points for TA on COT indicators. Although capacity building has been implemented in the pilot-run of PPST since 2018, there is a need for equipping TA providers in providing TA to teachers since they should see the COT indicators one notch higher than what teachers see. The

TA providers need to have a lens on how to assist teachers in improving their teaching practices in the classroom. To address this concern, the research-proponents developed a material entitled COT for TA Providers Modules that aimed to help TA providers identify critical episodes concerning the four indicators.

The results of this study may provide insights, broader views, and better understanding for the TA providers in identifying critical episodes during CO and provide suggested TA. The results may be valuable for educators to revisit how the TA providers rate teachers and determine what is with the teaching-and-learning resources that need the most attention for in-service training for teachers. In addition, the results may guide them for further policy formulations regarding teacher's training, designing instructional materials, and taking measures for the improvement of skills concerning the indicators while the TA providers (school heads, head teachers, master teachers, and designated observers) who provided assistance before and after an observation will be able to help teachers leading to a greater understanding of the practice of each indicator to improve teaching and learning.

1.6 Statement of the Problem

Hence, this research sought answers to the following questions:

1. Is COT for TA providers Module 3, 5, 7, and 8 useful in terms of:
 - a. Organization of ideas;
 - b. Content; and
 - c. Activity used?
 - d. What are the critical episodes and Technical Assistance that can be provided for COT Indicator numbers 3, 5, 7, and 8?
 - e. Is the COT for TA Providers Module 3, 5, 7, and 8 good to go?
 - f. What insights and themes on COT Indicator numbers 3, 5, 7, and 8 are suggested by TA providers in the field?

2 Method of Research

This research used mixed methods design. Mixed methods research involves the use of both quantitative and qualitative methods in a single study. This type of design provides "a more complete understanding of research problems than does the uses of either approach alone" (Fraenkel, Wallen, & Hyun, 2012, p.557).

This research made use of a survey which had three parts: (1) usefulness of Module 3, 5, 7, and 8 in terms of organization of ideas, content, and activity used; (2) input on critical episodes and TA provision; (3) recommendations of TA providers as to giving Module 3, 5, 7 and 8 a go, no, or not yet. The respondents of this study were the selected TA providers (master teachers, head teachers, and learning area supervisors) in SDOs Antipolo and Quezon Province. The sample was purposively selected. Note that the sample size in each module is not equal because few survey sheets were not submitted (Table 1).

Table 1. Sample Size

	Module 3	Module 5	Module 7	Module 8
Total	48	31	50	48

The researchers used a face-and-content validated questionnaire approved by the Curriculum Implementation Division (CID) Chief of SDO Antipolo to answer the first three research questions. This was given after the pilot-run of the Modules in the Technical Assistance Workshop in Loreland Farm Resort, Antipolo. First, the participants identified the usefulness of the modules in terms of organization of ideas, content, and activity used as useful, slightly useful, or not useful. Second, the participants provided critical episodes and their technical assistance on the same questionnaire. Third, the participants decided if the modules were good to go where they selected yes, no, or not yet as responses. To answer the fourth research question, the researcher asked a weaver to encode various insights and comments of the participants during the entire module development in Loreland, Antipolo and the pilot-run in Sevilla Resort, Lucena, Quezon Province. The researchers also encoded the outputs of the participants during the integration portion of the workshops. Then, the data were organized. Quantitative data were analyzed using frequency and percentage while the themes that emerged among qualitative data were analyzed.

3 Presentation and Discussion of Results

3.1 Usefulness of Module 3, 5, 7, and 8

Tables 2a-2c reveal that the majority of the participants see the four modules as useful in terms of the organization of its ideas, content, and activity used. Hence, the modules passed the usefulness standards of TA providers.

Table 2a. Usefulness of the Modules in terms of the Organization of Ideas

Descriptions	Module 3		Module 5		Module 7		Module 8	
	F	P	F	P	F	P	F	P
Useful	48	100%	31	100%	49	98%	48	100%
Slightly Useful	0	0%	0	0%	1	2%	0	0%
Not Useful	0	0%	0	0%	0	0%	0	0%
Total	48	100%	31	100%	50	100%	48	100%

Table 2b. Usefulness of the Modules in terms of Content

Descriptions	Module 3		Module 5		Module 7		Module 8	
	F	P	F	P	F	P	F	P
Useful	48	100%	31	100%	49	98%	48	100%
Slightly Useful	0	0%	0	0%	1	2%	0	0%
Not Useful	0	0%	0	0%	0	0%	0	0%
Total	48	100%	31	100%	50	100%	48	100%

Table 2c. Usefulness of the Modules in terms of Activity Used

Descriptions	Module 3		Module 5		Module 7		Module 8	
	F	P	F	P	F	P	F	P
Useful	48	100%	30	97%	48	96%	48	100%
Slightly Useful	0	0%	1	3%	2	4%	0	0%
Not Useful	0	0%	0	0%	0	0%	0	0%
Total	48	100%	31	100%	50	100%	48	100%

3.2 TA Providers' Inputs on Critical Episodes

This section provides snippets only of TA Providers' Inputs. When TA providers were asked to give TA on the situation: "Teacher Luningning is an English teacher in Grade 8 who delivered a lesson about the story of "The Two Brothers." In her post reading activity, she asked her learners a few LOTS questions and more HOTS questions in assessing their comprehension about the story. As a result, her average class students couldn't answer her HOTS questions effectively. What TA could you give to her?" The majority of the respondents agreed that :the teacher should consider the level of the learners,``LOTS are important to process before HOTS,``"use gradual psychological unfolding," and "consider the three levels of questions." Their inputs suggest that knowing the level of the students and the gradual unfolding of questions are indeed important.

When TA providers were asked to give TA on the situation: "During the group activity of Teacher Ramon for his CO2, two of his pupils started arguing with each other which caused noise and distracted their classmates. Teacher Ramon then told them to stay away from each other and that he will deal with the both of them after class." The greater number of respondents agreed that the behavior which disturbed the class should be addressed immediately rather than to be set aside, applying the classroom rules which the teacher and students should have agreed upon. Also, the respondents noted that the classroom seating arrangement could be modified according to their needs in order to avoid those incidents. Their responses suggest the significance of immediate response to address the behavior of the child through a positive and non-violent discipline approach of classroom management. In this way, it reinforces or takes away the behavior and allows them to reflect about the effects of their behavior.

When TA providers were asked to give TA on the situation: "Teacher Dela Cruz, a Grade 7 Science teacher in a depressed area, taught conversion of volume from L to mL and vice versa. During her discussion, she presented a problem solving in which a content of a Coca-Cola product is asked to be converted." majority of the respondents agreed that the teacher should consider contextualization and localization: "use the river water, tap water, or other condiments which are familiar to them," "Bakit gagamit ng coke kung bawal 'yan sa paaralan?" "hindi nga nakakatikim ng coca-cola products kasi depressed ang area." Their inputs suggest that contextualization and localization are indeed important.

3.3 Recommendations for Module 3

Table 3 reveals that when respondents were asked if they would give the modules a go, majority answered YES. The results suggest that the module could be run in the division and in other divisions as well. Only one in each module got a vote for either “no” or “not yet.”

Table 3. Recommendations of Participants

Responses	Module 3		Module 5		Module 7		Module 8	
Yes	47	98%	30	97%	49	98%	47	98%
No	1	2%	0	0%	0	0%	1	2%
Not Yet	0	0%	1	3%	1	2%	0	0%
Total	48	100%	31	100%	50	100%	48	100%

3.4 Insights and Themes Suggested by TA Providers in the Field

The participants of this study suggested themes and provided some important insights. This report identified few of these suggestions. For Module 5, most of the respondents had confusion in terms of how they should define and rate indicator number 5 because of the existing definition in the and the first roll-out from the Division Offices in the conduct of Module No. 5 that gave the TA providers the idea of seeing and limiting indicator no. 5 to the use of positive statements and positive reinforcements of the teachers. PPST Resource Package Module 5's definition of positive and non-violent discipline cleared this idea by defining it.

For module 7, there are only two concerns that arise in this module. One teacher commented that “Processing of outputs is very important in this indicator. Kung hindi maprocess ang outputs ng bata, it may result in misconception and will affect the succeeding task.” The discussion further developed when some master teachers and head teachers admitted that some teachers forget to process the activity that they asked their students to perform. Another teacher mentioned, “In this indicator, time management must be observed in every part of the lesson.” Since generally a lesson takes only an hour, teachers need to ensure that they are able to utilize every minute in their class. Hence, activities need to be carefully chosen in order to meet the objectives.

For module 8, most of the respondents had confusion in terms of how they should rate teachers in indicator 8 and 9 because of two different concepts given from the first roll-out of the Division Offices and in the conduct of Module 8. It was stressed in the first roll-out that in order for a teacher to receive 7 points or the highest point in the COT for indicator 8, teachers should integrate ICT integration where students should be able to learn how to manipulate. This led to the idea that teachers are not using ICT integration, but computer-aided instruction (CAI) only. For instance, using PowerPoint presentation in teaching is not ICT-integrated, but CAI only since there is no manipulation being done by the students. This is opposite with the revised PPST that clarifies that teaching and learning resources may include chalkboard, Manila paper or cartolina, printed materials like worksheets, flashcards, activity sheets, etc., while ICT Resources include slides

presentation, audio visual, social media, and other web-based applications, manipulatives, models, and others.

4 Recommendations

Based on the findings, COT for TA Providers Modules can be used and be rolled-out in different schools to capacitate TA providers in giving technical assistance. Strict implementation on the process flow of classroom observations that shall start with the pre-conference and ends with the post conference may be observed to avoid unnecessary problems concerning the lesson planning and delivery, selection and use of teaching strategies, student reinforcement, and resources to address learning goals. Contextualization and localization should always be considered in planning, selecting teaching strategies, and teaching-and-learning resources. The Division Officers may further conduct training or LAC sessions on the CO indicators. It is also recommended to have a follow up training/clarification on how teachers are rated in each COT indicator.

5 A Final Word

Teacher training and professional development take time, and they will require a laborious but complimentary effort of all trainers, TA providers, and teachers. For this endeavor to prosper, all need to remember why these processes are undertaken—to ensure students' learning. Beers (2006) stressed, "If students aren't learning, what difference does it make what strategies the teacher is using to teach? Administrators and other teacher trainers need to model effective instruction with an emphasis on learning." Thus, on top of evaluating teachers' performance and coaching them on effective performance of their job, TA should be contextualized and skewed to ensure that learning happens. In the context of the New Normal, TA providers are still expected to provide TA, not just rating or observations, to teachers to improve teaching and learning processes. This research may start dialogues and discussions on how TA may be done because of paradigm shifts and changes of times and circumstances that confront teachers all over the nation.

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An Increase in SDO Navotas Teacher's Scientific Research Skills Through Project STAR

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Abstract. This research aims to increase the level of awareness of forty selected science teachers cum research advisers in different competencies of Science Investigatory Project through Project STAR or Science Teachers Advancement in Research. The research is divided into three phases: Pre-implementation, Implementation, and Post-Implementation Phase. In pre-implementation, all science teachers of Navotas are given General Self-Efficacy Scales and then endorsed by their respective science department heads or coordinators for this training. The upskilling was held and handbooks on doing SIPs were given to the participants. A pre-test and post-test was also given to the participants spanning over the competencies. Moreover, a Likert scale was also used to look at their perceptions and level of self-awareness on the different skills in science investigatory projects. It has shown that Interpreting Data got the lowest awareness level in the scale with 3.150 general rating. On the other hand, categorization of research is at the highest level of 4.175. After Project STAR, there has been significant improvement in their awareness and content knowledge on critical skills on doing SIPs as reflected in the increments before and after the program. Specific themes as well have surfaced as hindrances as to why these research advisers do not do research, such as funding, administrative support, and technical knowledge. In conclusion, Project STAR achieved its goals of upskilling research advisers.

Keywords: science investigatory projects, upskilling, general self-efficacy, science teacher competencies, action research

1. Introduction

1.1 Context and Rationale

SDO - Navotas is one of the top performing divisions in NCR during Regional Science and Technology Fairs. Recent data shows that Navotas has a nine-year winning streak in the said contest. However, the percentage of research advisers over the number of science teachers are considerably low. Out of 78 science teachers, only 13 (16%) produce SIPs (DSTF) and 3 (3%) research advisers qualify and win in the RSTF.

The following are the winners of the Division of Navotas in Regional Science and Technology Fair from 2011 to 2018: 2011 (hosted by Taguig-Pateros) – 2nd Place Life Science Individual, 2nd Place Physical Science Individual; 2012 (hosted by Pasig) – 1st Place Physical Science Individual; 2013 (hosted by Makati) - 4th Place Physical Science

Team; 2014 (hosted by Navotas) – 4th Place Physical Science Individual; 2015 (hosted by Valenzuela) – 1st Place Life Science Team, 1st Place Physical Science Team; 2016 (hosted by Marikina) – 2nd Place Life Science Individual, 2nd Place Life Science Team; 2017 (hosted by Taguig) – 3rd Place Physical Science Individual, 5th Place Robotics and Intelligent Machines; 2018 (hosted by Caloocan) – 1st Place Physical Science Team, 2nd Place Physical Science Individual, 3rd Place Robotics and Intelligent Machines, 5th Place Life Science Team.

Moreover, the **K-to-12 Basic Education Curriculum** prepares students to develop lifelong learners and prepare graduates for different mastery of concepts and skills such as critical thinking, collaboration, communication, and creativity. Furthermore, the **National Science and Technology Fair** which is a yearly event of the Department aims to “promote Science and Technology consciousness and a culture of innovation among the youth”. Thus, this project is conceived to produce research-oriented, scientifically literate teachers of the City of Navotas. As a famous adage would say: “The quality of students cannot exceed the quality of the teachers.” We cannot produce students that are research oriented and scientifically literate if the teachers themselves are not science research-inclined.

In line with these, the researchers came up with **Project STAR**, which stands for Science Teacher Advancement in Research. This is a four-month long training program that aims to capacitate teachers in conducting Science Investigatory Projects.

1.2 Innovation, Intervention, and Strategy

Project STAR is a holistic training program that will be conducted starting June 2019 to September 2019. Project STAR's proposed innovation is based on methods from Cruthaka and Pinngern (2016), Errabo, Cajimat, and Orleans (2018), and Errabo and Prudente (2018). The program will be conducted mainly in the conference room of SDO Navotas. Resource persons to be tapped are the research advisers from other divisions of NCR. The project is divided into three phases: the Pre-implementation, Implementation Proper, and Post-Implementation and Dissemination phase. The development of the action research is based using the research and development (R&D) approach of Cruthaka and Pinngern (2016) and the tools for profiling, selection and pre-assessment of participants is based from the research methodology of Errabo, Cajimat, and Orleans in 2018. The Science Process Skills test that will be incorporated and adopted for the pre and post-test during the training program is from the study of Zeidan & Jayosi (2014) and is localized and validated by Errabo and Prudente (2018).

1.3 Participants and/or Other Sources of Data and Information

Respondents are chosen through purposive sampling. All science teachers of the division are given a **General Self – Efficacy Scale**, a tool by Schwarzer & Jerusalem (1995) utilized by Errabo, Cajimat and Orleans (2018) to determine the science teacher's personal self-efficacy in doing research. Afterwards, forty selected teachers were profiled using the teacher's profile and endorsed by their respective department head/science coordinator and/or their school head. Individual consent forms are given to the teachers

to inform and confirm their participation in the training. The number of participants per section is divided equally according to the number of science teachers in their school.

1.4 Data Gathering Methods

The proponents developed a Likert-type survey instrument that will gauge the respondents' scientific research knowledge before and after the program. The survey instrument gauges the level of awareness of the participants with regards to the following areas regarding research: what is scientific research, the distinction between basic, action and scientific research, ethical considerations in doing SIP, topic and problem development, the IMRAD Format in writing SIPs, citing references through various forms, the INTEL – ISEF Forms, accomplishing the data logbook, building collaboration and critiquing a research.

In addition, the participants had a pre- and post-test before and after the training program to measure the effectiveness of the training seminar. Some of the items for the pre- and post-test came from the Science Process Skills test developed by Zeidan & Jayosi (2014) as adopted in Errabo and Prudente (2018).

The participants accomplished a standard QAME form to be given at the end of every session to get feedback on the session. All the instruments, tools and materials to be used for the research is subjected to two levels of validation – internal validation (by the CID Chief of the Division, the science department heads/coordinators, and selected English teacher for grammar and construction check) and external validation (by the Regional Science Supervisor and selected research advisers from different Schools Division Office of the NCR coursed through the Regional Research Advisers Club).

The responses are entered in a mastery table to facilitate statistical treatment and analysis. To answer the research problem, the following statistical tools will be used for each type of analysis, through the MS Excel program.

1.5 Results

Table 1 shows that teachers are only aware of two categories identified - the ISEF forms and the categories of research whereas teachers are aware to some extent to 8 categories. This awareness is due to the fact that some of the advisers that were trained were somewhat exposed already to the norms of the INTEL-ISEF Science Fairs due to the fact that they have joined in the contest before. Categories of research can be classified into Life Science, Physical Science, Robotics and Intelligent Machines, and Science Innovation Exposition, with their specific distinctions. For the ISEF - Forms, these forms are revised yearly but the basic forms (Form 1, Form 1A, Form 1B, Form 2) are usually the same.

Interpreting data got the lowest awareness level. Interpretation of data does not stay in descriptive statistics but needs to elevate to inferential statistics, to which some of the respondents are not familiar with. One participant said "I don't have Masters degree units yet, so I don't have any idea with inferential statistics..." This misconception about the degree of inferential statistics bears weight in why the research advisers are not confident

enough to dive into more of inferential statistics when it comes to science investigatory projects.

Table 1. Level of Awareness of Conducting Science research of Science teachers in SDO Navotas using Likert-type Survey

Category	Means	Interpretation
Design Thinking	3.325	Aware to some extent
Identifying Variables	3.675	Aware to some extent
Research Paper Parts	3.775	Aware to some extent
Interpreting Data	3.150	Aware to some extent
Analyzing Data	3.350	Aware to some extent
Logbook Writing	3.800	Aware to some extent
Statistical Treatment of Data	3.675	Aware to some extent
Common Research Methods in SIP	3.575	Aware to some extent
ISEF Forms	4.075	Aware
Categories of Research	4.175	Aware

2. Discussions

2.1 On Level of Awareness in Different Facets of SIPs

From Table 1, we can say that the level of awareness of the forty selected respondents were on a scale of "aware to an extent" to "aware". This shows that the research advisers have a prior knowledge on doing SIPs. Prior knowledge, or schema, is important as prior knowledge can be used to build motivation. Self-efficacy, as measured by the GSE, can be improved if prior knowledge is always built up. In professional learning, mentors and supervisors can enhance the teacher's motivation in doing work by setting up opportunities for them to connect prior knowledge (Perkins & Salomon, 2012).

With this in mind, the Division, together with the results of this research, came up with the next steps on how the division and schools can set up opportunities for more teachers and even students to connect their prior knowledge from science subjects into more meaningful scientific research.

The facet of SIP that got the lowest awareness score in the Likert scale is Interpreting Data. In this facet, teacher-advisers should have a good grasp not just of science but also of mathematics, specifically Inferential Statistics. In graduate school, researchers usually consult a statistician for this, but for student's investigatory projects, the task of

interpretation of data, which includes selection of appropriate statistical tests and tools, is at the helm of the research adviser. This disconnect can be solved by doing intensive training on research focusing on interpretation of data.

2.2 On Factors Affecting Research Advisers on Doing SIPs

From the focus group discussions and roll-outs in schools, here are some of the emerging themes highlighted on the factors affecting the participants on why they do not conduct Science Investigatory Projects.

Table 2. Emerging Themes on Factors Affecting Participants to Conduct SIP

Emerging Theme	Selected Coded Teacher’s Responses
1. Funding	“There was not enough funding...” “Teachers dole out money for student’ researches...”
2. Teacher’s loading	“Being a research adviser is not considered to be an ancillary task...” “Additional teaching load but not counted...” “Being a research adviser doesn’t count as an action research...”
3. Lack of Technical knowledge	“I don’t know where to do my student’s research...” “I feel that I am inadequate to advise...” “I have no connections to laboratories...”

These are the three emerging themes that rise from the coding of responses in one of the activities in the implementation of the program and is validated through an FGD with the department heads and subject coordinators. These align with findings from Errabo’s nationally scaled action research as well as the findings of Sanchez and Rosaroso (2019). There is really a challenge in terms of the curriculum. While science investigatory project making is encouraged as manifested in different DepEd Central Office issuances, there is a “lack of infrastructure in basic education (Sanchez and Rosaroso, 2019)” in terms of supporting science research. This encapsulates the terms lack of technical knowledge, teachers’ loading, and funding. Since technologies count, there is a need for support in the national and local level. Experiences from research advisers state that the lack of support from the local government or even the school administration hinders them to do scientific research and dampens their confidence. The technical know-hows on research are also hindered by the lack of scientific equipment and apparatus in their specific school stations.

The results gathered in the factors that affect teachers on why they don’t do Science Investigatory Projects were parallel to what Errabo, Cajimat, and Orleans (2018) studied on a national scale. These researchers found that the most difficult part of doing research is on review of related literature and studies that requires technical skills and in-depth knowledge on the variables considered in the study.

2.3 On Increased Level of Awareness in Conducting Science Research After Project STAR

Table 3. Level of Awareness of Conducting Science research of Science teachers in SDO Navotas

Category	Item No.	Mean Percentage Score (Pre-test)	Mean Percentage Score (Post-test)	Increment †
Design Thinking	1	53.5	90.0	36.5
	2	45.0	92.5	47.5
Identifying Variables	3	67.5	97.5	30.0
	4	70.0	97.5	27.5
Research Paper Parts	5	60.0	87.5	27.5
	6	55.0	82.5	27.5
	7	62.5	95.0	32.5
Interpreting and Presenting Data	8	70.0	95.0	25.0
	9	65.0	97.5	32.5
	10	65.0	97.5	32.5
Logbook Writing	11	57.5	90.0	32.5
	12	57.5	87.5	30.0
	13	47.5	87.5	40.0
	14	72.5	92.5	20.0
	15	65.0	95.0	30.0
Statistical Treatment of Data	16	57.5	90.0	32.5
Common Research Methods in SIP	17	57.5	87.5	30.0
	18	65.0	87.5	22.5
ISEF Forms	19	52.5	95.0	42.5
Categories of Research	20	80.0	97.5	17.5
Average:		61.525%	92.125%	30.6%

Table 3 shows the pe-test and post-test mean percentage score of the teachers in a 20-item test. An average of 61.525% is registered to the MPS of pre-test while 92.125% MPS for post-test with an increment of 30.6%. The graphical representation below will show the increments vis-a-vis the mean percentages of pre-test and post-test.

There is an increment in the level of awareness in conducting science research as manifested in the differences in the mean percentage scores of the participants after the one-week training. Greatest increment is seen in the competency of design thinking. Design thinking is one of the new techniques employed in Science Investigatory Projects in terms of research problem formulation and ideation. The increment of the teacher's knowledge in design thinking manifested as well in the number of science investigatory projects produced at the last Division Science and Technology Fair 2019.

The competency with the least increment is about research methods. It is an imperative step towards realizing the fulfilment of a science investigatory project. It also reflects the emerging theme that the participants have aired during the focus group discussion. There is a certain knowledge gap between the expertise of the research adviser and the research that the advisee wants to take. Unlike graduate school where advisers have specific area specializations, usually research advisers in the high school level cater to all categories of research - life science, physical science, robotics, and science innovation. It is therefore seen that being master of all is needed by the research advisers to propel students into venturing into different research fields.

2.4 On SDO Navotas' performance after Project S.T.A.R

There is a significant increase in the number of projects that have participated in the Division Science and Technology Fair after the implementation of Project STAR for the year 2019. Moreover, the level of participation of SDO Navotas after Project STAR increased, from regional level, now to the National Level through Navotas National Science High School's SIE project. This project participated in the NSTF 2020. Another feat after Project STAR is the first DOST-PCIEERD grant given to Navotas National Science High School and also to SDO Navotas. This can be directly attributed to the effectiveness of Project STAR's implementation in terms of coaching and mentoring research advisers, and thus creating a ripple effect to their students.

2.2 Conclusions

Based on the data that were gathered, the following conclusions were drawn:

1. Before the implementation of the Project S.T.A.R., teachers were aware to some extent on the following categories namely, design thinking, identifying variables, parts of a scientific research paper, analyzing and interpreting data, writing in a logbook, research methods, and statistical treatment, while teachers are aware of the categories of Science Investigatory Projects and forms to be used in ISEF.
2. There is an increment in the post test of 30.60% after the conduct of the 4-day training-workshop.
3. The emerging themes formulated are the funding, teacher's loading and technical knowledge.
4. Project S.T.A.R. is indeed an effective intervention to capacitate teachers in conducting Science Investigatory Projects.

3. Implications and Reflections

After the four-month implementation of the Project S.T.A.R, we, the researchers, had seen significant improvement in the performance of the different schools in Navotas in terms of Science Investigatory Research. For a long time, there have always been two schools who compete in the science fair, and that practice is very exclusive in nature. Education needs to be inclusive, so this project paved the way for a more inclusive and growth-oriented science curricula for our students and teachers.

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Blended Learning Approaches to Teaching and Learning in a Research Writing Class in a Private University in an Action Research Study

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ABSTRACT

The use of blended learning has shown its effectivity and purpose in the teaching learning process. This research reports on the blended learning approach conducted in 2019. In the tertiary setting, teachers have been using online managements systems and other general online tools in order to continue teaching during quarantine. Blended learning approaches to teaching and learning will be crucial to allow both students and faculty achieve both personal and professional goals. The goal of this research was to look into the students' perspectives on using blended learning approaches in data collection for their research class. This study looks into the teaching and learning tools used in an academic writing class. More specifically, it looked into the data gathering tools for dissemination in a college writing course. The study sample comprised of 40 students who were distributed into experimental and control groups. The research aims to shed more light on how to improve data gathering in face to face and online learning settings. The researchers use both quantitative and qualitative data collection techniques on the students' insights on the use of Google classroom and traditional paper and pencil survey dissemination. Students felt that using Google Classroom was more beneficial compared to traditional data gathering tools. Specifically, the research suggests that blended learning tools has farther reach and more sophistication in research design.

Keywords: Blended Learning, Google Classroom, Research Writing and Research Design, Hybrid Instruction, Action Research, Educational Change

INTRODUCTION

Brought about by visionary thinking, Internet can trace its earliest records in the 1960's. In retrospect, it was originally created to realize the perceived potential value of sharing pertinent information on research that may advance scientific and military developments. However, Internet, considered now as a friendly-user infrastructure, was not that simple to use during that era. In fact, users needed to adopt themselves in a very complex system to run it. These users were the computer experts, engineers, scientists, and librarians of yesteryears. Thus, home or office computers were not that prominent (Howe, 2010), and eventually, internet underwent a rapid phase of change. Since the aforesaid time, the usage of Internet has become more immense.

Internet, a U.S. government-funded project and exclusive to it then, has served and continuously serving mankind for years since its invention. The Internet has revolutionized

the way people search for information, exchange data, connect with people, and perform other related endeavors.

Its impact is encompassing that may be observed in different fields of interest; hence, it has developed a culture distinct on its own. This is known as Internet culture. With an enormous number of users throughout the decades, the spread of the aforementioned culture propagates in a split second.

It has improved the way users communicate with each other regardless of time, territories, customs, and nations. In this light, internet is a medium that cuts through the laws of time and space; breaks the barriers of color and tongue; and dissolves the walls of earlier conventions, and this phenomenon is universal in nature.

Indeed, Internet seems to challenge earlier observed conventions and norms in almost if not all industries or disciplines particularly in the field of education. For most, Internet and the teaching-learning process can be complimentary to each other to a certain extent. Parallel to the promotion of such Internet use in the field of education is the perceived enhancement of learning. Through internet, teachers and students can exhaust more vicarious learning situations and exchange information, messages, and ideas, thus resulting in what is known now as e-learning (Horton, 2002; Khan, 2015).

The increasing interest and prevalence in usage of the Internet and other digitally-related technology have heightened the need for studying their impact on the teaching-learning process or in pedagogy at large. However, the use of traditional approach in the teaching-learning process, together with its efficacy and importance, is not being discounted by scholars. Hence, a good number of scholars, educators and other members of the academe would still consider combining traditional means and e-learning approaches in the teaching and learning of their content areas, thus giving rise to what is known as blended learning. Khan (2015) operationally defines blended learning as "the blending of different learning methods, techniques and resources and applying them in an interactively meaningful learning environment."

Singh (2003) adds, "Blended learning mixes various event-based activities, including face-to-face classrooms, live e-learning, and self-paced learning. This often is a mix of traditional instructor-led training, synchronous online conferencing or training, asynchronous self-paced study, and structured on-the-job training from an experienced worker or mentor (p.3)."

According to Singh (2003), adopting a sole e-learning approach may not be advisable to a certain extent. In the first generation of e-learning, it was like imitating the physical classroom and installing such over the net; it is similar to an online version of a physical classroom. Singh (2003) makes a commentary based on the experience of the first wave of e-learning:

"The experience gained from the first-generation of e-learning, often riddled with long sequences of 'page-turner' content and point-and-click quizzes, is giving rise to the realization that a single mode of instructional delivery may not provide sufficient choices, engagement, social contact, relevance, and context needed to facilitate successful learning and performance." (p. 1)

In line with this, a second wave of e-learning was launched; on the other hand, time a number of learning designers were experimenting with blended learning models that

combine various delivery modes. They noted anecdotal evidence showing that blended learning offers more relevance and pertinence to the students' learning at large.

Henceforth, according to Singh (2003), educators nowadays should be able to effectively and efficiently select the content information they should teach to a particular audience at a particular time through a particular way. Moreover, teachers take on varied roles such as being facilitators, supervisors, assessors, organizers and managers of learning activities, thus requiring them to be more creative more than ever to support the learners and provide various learning materials in different formats (Khan, 2015).

In a similar vein, by employing blended learning, learners get to have an access on different learning resources, may they be digital or traditional by nature. They get to also apply their acquired or learned knowledge and skills under the supervision and support of the teacher inside and outside the classroom. Furthermore, students get to take decisions, think creatively and critically, investigate and explore as well as solve problems they face in learning and real life through the vicarious learning tasks and activities designed by their respective teachers. Moreover, given the blended learning approach, learners can opt for the best activities suiting their own pace, learning style and level, as well as time and place, thus making them more independent and self-reliant in their own learning (Khan, 2015).

Nevertheless, teachers and learners are not just the key stakeholders in the blended learning approach. Badrul Khan introduces his Octagonal Model by which it highlights the various factors to be considered by a learning organization or institution, for blended learning to be successful. Below is Khan's Octagonal Model:

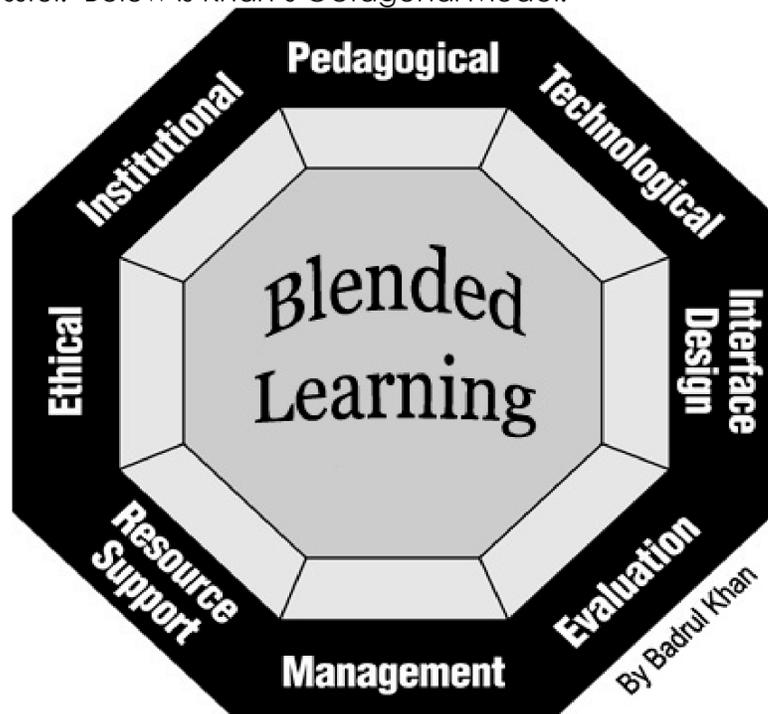


Figure 1. Khan's Octagonal Model

Figure 1 shows the proposed Octagonal model of Khan. As highlighted in the figure above, there are a number of factors and issues a learning organization or institution should consider in implementing blended learning. Indeed, blended learning has

developed itself over the years to be one effective approach, but the environment where it thrives. It is about knowing what works for the stakeholders in a given situation.

RESEARCH PROBLEM

With all these in mind, blended learning seems to be an arduous task; however, the benefits of such approach are numerous in terms of holistically developing the students. Hence, in this paper, the researchers aim to highlight the benefits of using blended learning vis-à-vis traditional approach in teaching one topic at hand – surveying and designing questionnaires. In this study, the researchers taught the aforementioned topic using similar materials (e.g. pretest, posttest, content and activities); however, they had to use two distinct approaches. One has to use blended learning (e.g. employing Internet-mediated and digital resources) while the other one has to employ traditional means (e.g. whiteboard marker, whiteboard and a lot of teacher talk).

The study aims to show if there is any significant difference between blended learning approach and traditional approach in terms of the entire teaching-learning paradigm. Following are the specific points to be studied:

1. Which approach will best generate learning the given topic through the pen and paper assessment scores?
2. Which approach will best provide a vivid learning experience for the students?
3. Which approach will best work with the given topic, students, time, context and other observed considerations?

METHODOLOGY

LESSON OBJECTIVES

Below are the general and specific objectives the lesson plan had to arrive at: General

- Apply the fundamentals of conducting a survey in relation to the research task at hand
- Specific
- Identify pertinent primary data needed in the proposed study
- Demonstrate grasp of the topic by designing a survey questionnaire with the use of Google Forms
- Highlight intellectual honesty through proper documentation when adopting questionnaires
- Administer the selected questionnaires to the involved participants

EXPERIMENTAL AND INTACT GROUP OF LEARNERS

Two groups of learners were used in the study, specifically the experimental and the intact groups. The experimental group was the one to receive instruction using the blended learning approach, whereas the intact one was the one to be under traditional instruction.

Both groups actually belong to College of Liberal Arts (CLA), and each group was composed of students ranging from their sophomore to junior tertiary years under the De La Salle tutelage. These aforementioned participants have majors ranging from legal management, advertising, psychology, economics and accountancy.

TEACHER WHO WOULD CONDUCT THE CLASSES

To save time and effort, both researchers decided to take on one specific approach and conduct it before their actual classes. Kimberley Migallos had to do blended learning while Allan Rey Villaverde had to do traditional. Both educators are handling English Research (ENGLRES), one of the General English courses offered in De La Salle University- Manila. Moreover, both educators are part of the faculty roster from Department of English and Applied Linguistics (DEAL).

LEARNING ENVIRONMENTS FOR EXPERIMENTAL AND INTACT GROUPS

Since both classes are housed in De La Salle University, the learning environments for both groups are identically similar in facets. For the experimental group, the teacher was able to exhaust the provided facilities inside the room like the computer and Internet connection, and the students belonging to this group were also requested to bring their own gadgets. However, the internet connection may not that too accessible or strong during the class, thus limiting the students still.

On the other hand, for the intact group, the teacher assigned had to ignore all the available digital resources inside room and instead focus on using traditional technology such as the whiteboard and whiteboard marker. The teacher had to also use photocopied hand-outs as visuals and documents under study and did a lot of teacher talk.

RESULTS AND DISCUSSION

PRETEST-POSTTEST RESULTS OF EXPERIMENTAL VIS-A-VIS INTACT GROUP OF LEARNERS

The pretest and posttest of both the experimental group and the intact group of learners had 20 items. It was divided into three specific sections. The first section was about the definition of the survey. It utilized a True or False kind of test. The second section utilized Error Analysis. In the second section, it required the students to identify erroneous words in constructing survey questions or doing a case study. The third section asked about the different kinds of survey questions.

In the experimental group, the pretest scores ranged from 8 over 20 to 19 over 20, the mean being 13.61 for the pretest. However, in the posttest, the experimental group had a mean of 17.87.

As for the intact group, the pretest scores ranged from 9 over 20 to 19 over 20 with the mean of 13.7 for the pretest, while in the posttest, the intact group registered a mean of 17.90.

STUDENT RATING ON BLENDED LEARNING VIS-A-VIS TRADITIONAL CLASS

The Blended Learning lesson aimed to apply the fundamentals of conducting a survey in relation to the research task at hand. Based on the implementation, the researchers believe that it has successfully applied the specific objectives of identifying primary data needed in their specific research papers. The report also reveals that they show clear understanding of designing a survey questionnaire with the use of Google Forms. In terms of proper documentation, it will be developed in the final stages of the research paper.

Also, the students in the experimental group were able to administer the selected questionnaires to the involved participants.

Some suggestions for improvement based on the rating are that perhaps for the blended lesson plan, the venue should be more equipped for the use of Google Forms. This is because even if the students have their devices, Google Forms cannot be accessed without the use of the internet.

In a similar vein, the intact group generated same results with the absence of digital technology though. However, it was a salient observation in the intact group that the actual drafting, finalizing and administering the survey questionnaires were all slowed down due to the approach employed. Moreover, it must also be noted that some students did inquire if they could possibly use online surveying sites or softwares in the process. Lastly, the students in the intact group noticeably observed the shift of the teacher to traditional approach that used to do a number of blended learning tasks and opportunities.

Hence, a focused group discussion was done to gather the students' insights regarding the experience, and the things they pointed verified the salient points noted by the teacher assigned in the intact group.

TEACHER RATING ON BLENDED LEARNING VIS-A-VIS TRADITIONAL CLASS

The researchers firmly believe that the blended lesson plan has good intentions of integrating technology in the classroom and in the skills to be learned by the students. The blended learning plan is beneficial to a lot of students and teachers. This can help maximize the learning of the students not just in research but in other subjects or courses as well. As researchers, we believe that integrating technology inside the classroom must be studied well to have successful learning outcomes in the near future.

Employing the traditional approach may be effective to a certain extent although it actually presents some drawbacks. One would have to be the long time preparation on the part of the teacher. Also, teachers had to do a lot of teacher talk and less of student talk which deviates the advocacy of 21st century learning. As an addition, accomplishing the task takes more arduous effort and consumes much time.

CONCLUSIONS AND RECOMMENDATIONS

Based on this research experiment of using blended learning and traditional research, the researchers have come to several conclusions and recommendations. First, technology inside the classroom must have clear goals and objectives right from the planning phase to the evaluation phase. Next, in blended learning, facilities such as internet connection or Wifi must be taken into consideration for it to have a successful implementation. The researchers highly recommend the use of an equipped facility to have a successful activity or lesson. Also, the use of technology does also alleviate and hasten the teaching-learning paradigm or construct for both stakeholders – students and teachers; however, it must also be noted that in sum, teachers should still be the best form of technology inside the classroom.

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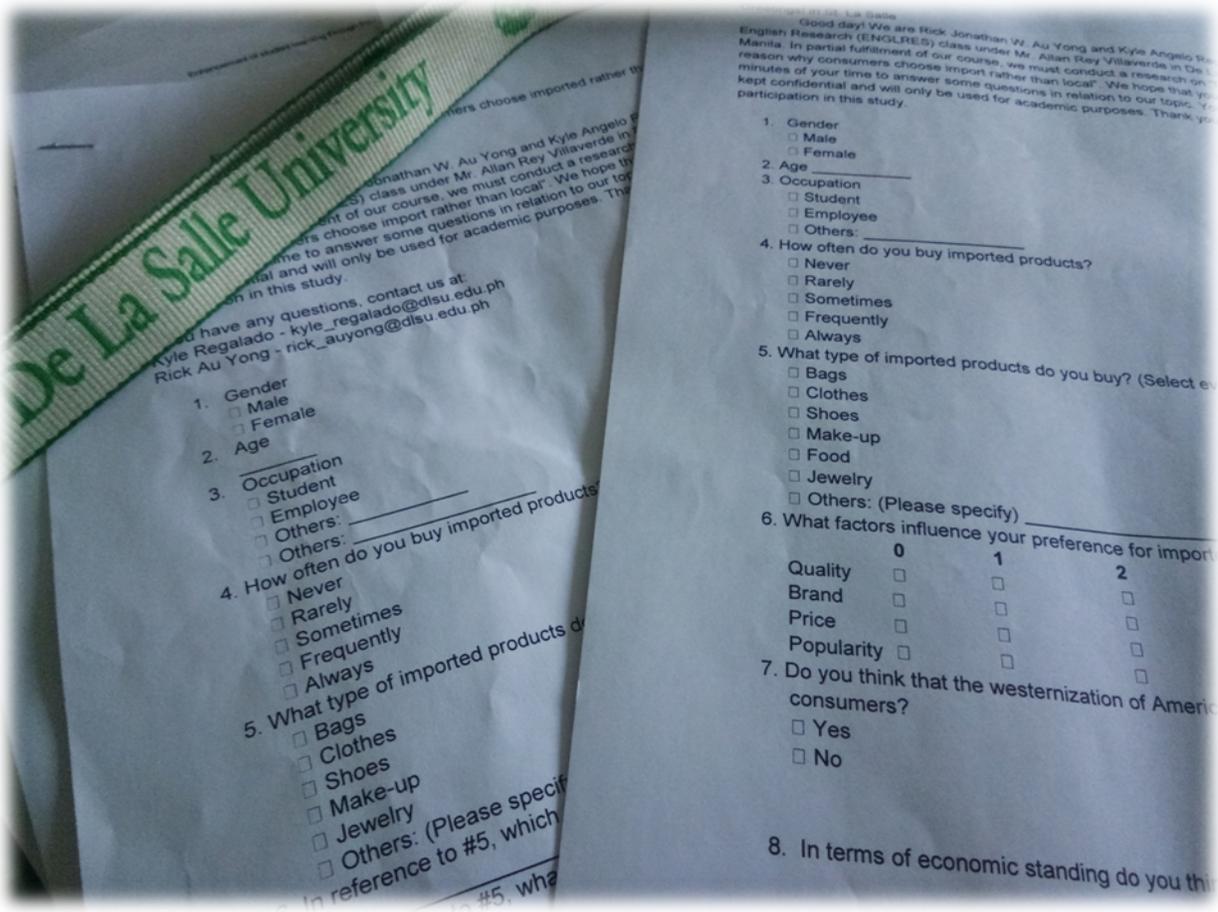
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- **DOCUMENTATION**









APPENDICES

**Appendix A
PRETEST & POSTTEST**



De La Salle University
Taft Avenue, Manila

English Research (ENGLRES)

20

Name _____ Section _____ Date _____ Professor _____

- I. True or False. Study each statement carefully. Then, write T if the statement is correct and F if otherwise.**
- _____ 1. Survey is used to collect demographic data about people's behavior, practices, intentions, beliefs, attitudes, opinions, judgments, interests, perceptions, and the like.
 - _____ 2. A survey may also be termed as a normative survey.
 - _____ 3. A case study is a comprehensive, complete, detailed, and in-depth study and analysis of an individual, institution, group, or community.
 - _____ 4. In conducting a survey, representativeness is not given much importance and emphasis.
 - _____ 5. A survey involves and usually involves one person, family, small group, or small community.

II. Error Identification. Study each statement carefully, and write the letter which makes it erroneous. If no error exists, write E.

On formulating survey questions...

- _____ 1. Make all directions clear and equivocal.
A B C D
- _____ 2. Use correct grammar in asking questions.
A B C D
- _____ 3. Add a catch-all word or phrase to options of multiple response questions.
A B C D
- _____ 4. Consider asking biased questions.
A B C D
- _____ 5. Objectify the responses as much as possible.
A B C D
- _____ 6. Deviate all questions to the topic under study.
A B C D
- _____ 7. Create categories or classes for approximate answers.
A B C D
- _____ 8. Word carefully or avoid questions that deal with confidential or embarrassing information.
A B C D
- _____ 9. Explain and illustrate difficult questions.
A B C D
- _____ 10. Make as many questions as would supply adequate information for the study.
A B C D

- III. Multiple Choice. Identify the types of questions given below. Write the letters only.**
- _____ 1. What is your current marital status? A: [Participants provide answers in their own words]
a. multiple choice b. multiple response c. ordinal d. open-ended
 - _____ 2. What is your current marital status? (Select one.)
Single Married Divorced Separated Widowed
a. multiple choice b. multiple response c. likert d. open-ended
 - _____ 3. What is your gender? Male Female
a. multiple choice b. likert c. multiple response d. ordinal
 - _____ 4. How important do you think SAT scores are to a college student's success? (select one):
▶ Not very important 1 2 3 4 5 Extremely important
a. multiple choice b. likert c. multiple response d. ordinal
 - _____ 5. Please rank the importance of the following qualities in a team leader. (Please fill in your rank order in the spaces provided using the numbers 1 through 5)
A team leader that is sincere
A team leader that gets resources for the team
A team leader that is an advocate for the team
A team leader that is a strong disciplinarian
A team leader that is a good motivator
a. multiple choice b. likert c. multiple response d. ordinal

Appendix B
Google Classroom Slides

<p style="text-align: center;">Descriptive Method of Research</p> <p style="text-align: center;">ENGLRES</p>	<p style="text-align: center;">Yes or No?</p> <ol style="list-style-type: none"> 1. How many here have Instagram accounts? 2. How many here plan to go on a diet really soon? 3. How many here are single as of the moment? 4. How many here go on a Happy Thursday? 5. How many here have gone to a foreign country alone?
<p style="text-align: center;">Three Techniques Under The Descriptive Method of Research</p> <ul style="list-style-type: none"> • Survey • Case Study 	<ul style="list-style-type: none"> • Survey, otherwise known as the normative survey, is a fact-finding study with adequate and accurate interpretation. It is used as to collect demographic data about people's behavior, practices, intentions, beliefs, attitudes, opinions, judgments, interests, perceptions, and the like and then such data are analyzed, organized, and interpreted.

<ul style="list-style-type: none"> • Case study is a comprehensive, complete, detailed, and in-depth study and analysis of an individual, institution, group, or community. 	<h3 style="text-align: center;">Representativeness</h3> <ul style="list-style-type: none"> • Representativeness is defined as the level of how well or how accurately something reflects upon a sample. • When a study gives a good indication of what the whole population believes, this is an example of a study with good representativeness.
<h3 style="text-align: center;">Features of a survey</h3> <ul style="list-style-type: none"> • The group surveyed is usually large. • The number of aspects or variables in the life of the group surveyed is limited. • Cause-effect relationships are not given emphasis. Aim of a study may only be to determine status. • Representativeness is important and is given emphasis. • Curiosity, interest, or just to determine norm or status may initiate a survey. • Only conditions or practices present during the survey are considered except in comparative studies when present conditions are compared with conditions in the past. 	<h3 style="text-align: center;">Features of a case study</h3> <ul style="list-style-type: none"> • Case study may involve and usually involves one person, family, small group, or small community. • Usually all aspects or variables in the life cycle of the case under study are included. • Finding the causes of certain phenomena is always a part of a case study. • Representativeness is not important. The results of a single case study do not provide certainty that the case is truly representative. • Abnormalities or undesirable traits or conditions usually initiate a case study. • Data about the case from birth or origin or even of the future are considered.
<h3 style="text-align: center;">Advantages of the Survey Approach Over the Case Study Approach</h3> <ul style="list-style-type: none"> • Survey reveals what is typical, average, or normal against which the behavior or performance of an individual can be judged or evaluated. • The results of a survey may be used for prediction. • Survey makes possible the formulation of generalizations because the sample has a high degree of representativeness. • Survey reveals problems for which timely remedial measures may be instituted. • It is easy to get respondents of a survey. • The instruments for gathering data are easy to determine, construct, validate, and administer. 	<h3 style="text-align: center;">Principles to remember:</h3> <ul style="list-style-type: none"> • Make sure your survey questions match your research objectives. • Understand your research participants. • Use natural and familiar language.

<h3>Types of Survey Questions:</h3> <ul style="list-style-type: none"> • Open-ended • <i>Example</i> • What is your current marital status? • A: [Participants provide answers in their own words] 	<ul style="list-style-type: none"> • Closed-ended • Multiple Choice • <i>Example</i> • What is your current marital status? (Select one.) • Single • Married • Divorced • Separated • Widowed
<ul style="list-style-type: none"> • Ordinal • <i>Example</i> <p>Please rank the importance of the following qualities in a team leader. (Please fill in your rank order in the spaces provided using the numbers 1 through 5)</p> <p>A team leader that is sincere A team leader that gets resources for the team A team leader that is an advocate for the team A team leader that is a strong disciplinarian A team leader that is a good motivator</p>	<ul style="list-style-type: none"> • Categorical • <i>Example</i> • What is your gender? • Male • Female <ul style="list-style-type: none"> • Likert-Scale • <i>Example</i> • How important do you think SAT scores are to a college student's success? (select one): • Not very important 1 2 3 4 5 Extremely important
<h2>More on surveying...</h2>	<h3>Guidelines in the formulation of questions</h3> <ul style="list-style-type: none"> • Make all directions & questions clear and apparent. • Use correct grammar. • Avoid asking biased questions. • Objectify the responses. • Relate all questions to the topic under study. • Create categories or classes for approximate answers.

Project A.S.P.I.R.E: Active Stakeholders Participation and Involvement in Reading Enhancement: An Initiative to Continue Education in this New Normal

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Abstract. Project ASPIRE or Active Stakeholders Participation and Involvement in Reading Enhancement aimed to improve the reading literacy skills of the pupils from Grades one to six in Sta.Ana Elementary School through the full support and involvement of all stakeholders. A joint project supported by the teachers, parents, Local Government Unit (LGU), and Barangay Officials, General Parent Teachers Association, and Private Industries in the Municipality. This study was also conducted to determine the level of effectiveness in the implementation of Project A.S.P.I.R.E as school initiative to continue providing quality education in this new normal. Interview and survey questionnaires were administered to fifty (50) learners from Sitio Kilablab, the farthest far-flung area. The result revealed that participants strongly agreed that they faced high level of difficulties and challenges in learning reading using self-printed modules at home. To minimize the reading problems, researchers implemented various interventions such as Installation of School - Based Radio Station, an educational broadcasting station where Radio - Based lessons in reading were broadcasted clearly, learners were provided by researcher - made contextualized reading manuals to be their reading tool at home, stakeholders provided the learners with individual radio transistors, and flash drives, LGU or Local Government Unit shouldered the honorarium the para-teachers as reading tutors for learners situated in far flung areas and the active participation of stakeholders in reading activities where they served as reading tutors. Results on the impact of interventions showed that on the average, learners agreed that the given interventions were highly effective in minimizing their reading difficulties. It was also found out that the reading assessment of the learners showed improvement and increase in the post reading assessment. Based on the findings, the participants concluded that difficulties in reading can be minimized and can be improved through Project ASPIRE. Therefore, the program should be sustained and properly monitored for continuous improvement of the learners. Installation of Radio station and implementation of RBI or Radio-based Instruction as aid to learners' difficulties in distance learning should be supported by stakeholders

Keywords: Reading Literacy, Radio- Based Instruction (RBI), Stakeholders, Contextualized Reading Manual, Educational Radio Station

1. Context and Rationale

Learning to read is an indispensable part of basic education. Reading, after all, is an essential gateway to the other disciplines. It has been said that reading is the primary avenue to knowledge. According to Aikat (2007), reading plays a very important role in enhancing the minds of young individuals, developing their "capacity for focused attention" as well as their "imaginative growth". Past research has shown a positive relationship between people's reading habits and their active involvement in other endeavors. A child who fails to develop his reading skills at a certain level of his education finds reading boring, and difficult to achieve (Mondero, 1995). If children are not independent readers by the end of the first grade, it is unlikely that they will be able to be successful in the middle grades and beyond and most likely they rarely able to "catch up" with their peers. This phenomenon of reading failure makes the child inattentive, irritable, and passive. Therefore, his failure in this area hampers him to achieve academically in other content area subjects. This may even lead to negative attitude towards schooling. This undeniable reality urges schools to consider reading as a very significant factor to the success or failure in every educational endeavor. The Department of Education as the responsible department of the government in all educational events in the country has institutionalized the implementation of the ECARP or Every Child a Reader Program which aims to mobilize national goal of producing literacy and numeracy- skilled and independent citizens. (Umali,2016)

On the other hand, Sta.Ana Elementary School is the largest non-central school in the District of Tagoloan with 1,204 learners and 36 teaching staff. It is one of the performing schools in the District which garnered several awards in both academic and non-academic areas. However, based on the findings of previous Phil-IRI or Philippine Informal Reading Inventory reading assessment, result revealed that there were fifty (50) pupils who were assessed as non-readers at the end of the school year. Thorough investigation and intensive home visitation of the school head and reading teachers were done to validate the result. Researcher found out that majority of the non-readers were living at sitio Kilablab, the far-flung area of Sta.Ana with approximately seven (7) kilometers away and has eight (8) rivers to cross before reaching the school campus. Based on teachers' anecdotal records, the learners belonged to PARDOS or Pupils at Risk of Dropping Out. The validated result of post reading assessment signifies an urgent need to implement reading interventions. This situation prompted the school head and teachers specially at this time of pandemic brought by COVID -19 on how to reach out these learners to help improve their reading performance.

This action research aimed to improve the reading literacy skills of the pupils from Grades one to six in Sta.Ana Elementary School through the full support and involvement of all stakeholders in the school. A joint initiative supported by the Department of Education, teachers, parents, Local Government Unit (LGU), and Barangay Officials, General Parent Teachers Association, and Private Industries in the Municipality of Tagoloan. This study was also conducted to determine the level of effectiveness in the implementation of Project A.S.P.I.R.E which stands for Active Stakeholders' Participation and Involvement in Reading Enhancement of the Learners, a school initiative to continue providing quality education in this new normal.

This was derived due to the paradigm shift of educating the learners due to COVID-19 outbreak. The researchers implemented various interventions such as Installation of School - Based Radio Station, an educational broadcasting station where Radio - Based lessons in reading were broadcasted clearly by the teachers, provision of researcher – made contextualized reading manuals, learner's provision of individual radio transistors, and flash drives sponsored by stakeholders, hiring of para-teachers as reading tutors for learners situated in far flung areas and the active participation of stakeholders in reading activities where they served as reading tutors. The successive six-month pull-out reading tutorial sessions and small zonal community learning sessions were done every Monday, Wednesday, and Friday from 8:00 to 3:00 in the afternoon was conducted by volunteered stakeholders to help pupils improve their skills in reading. Finally, the school aimed to deliver quality education through developing the reading literacy of the learner's despite of the challenges and paradigm shift of education and ensure that no child should be left behind during this time of uncertainties.

The table below shows the school data of reading test result

Table 1. Learners Reading Profile

Year level	Number of learners	Reading Performance	Reading Level
Grade one	7	Cannot recognized letters/alphabet	Non- Reader
Grade two	8	Cannot recognized sound, letters / words	Non- Reader
Grade three	12	Cannot recognized sounds, letters / words	Non- Reader
Grade four	9	Cannot recognized sounds, letters / words	Non- Reader
Grade five	8	Cannot recognized sounds, letters / words	Non- Reader
Grade six	6	Cannot recognized sounds, letters / words	Non- Reader
Total	50		

The data reveals a total number of fifty (50) learners who belonged to non-readers. Grade three level with the total of twelve (12) non-readers incurred the highest number of learners with reading difficulty while grade six has one six (6) non-reader as the lowest number which needs reading intervention.

2. Action Research Questions

This action research sought to answer the following questions.

1. What are the challenges faced by the learners in modular learning modality?
2. What is the level of perceptions on the effectiveness of project ASPIRE interventions to the learners reading performance?

3. Is there an improvement of pupils' level in reading performance before and after the interventions?

3. Innovation, Intervention, and Strategy

Sta.Ana Elementary School initiated various interventions to improve the reading skills of the learners. The following strategies were implemented.

1. To aid learner's difficulties in reading, the school implemented radio - based instruction. The researchers led the Installation of School - Based Radio Station, an educational broadcasting station where Radio - Based lessons in reading were broadcasted daily by the teachers from Monday to Friday ,7:30-12:00 and 1:00 – 4:00 in the afternoon. All teachers were trained in making audio lessons in teaching reading to all grade levels.

2. Stakeholders in Sta. Ana actively supported the program through the Local Government Unit, sponsored individual radio transistors and flash drives to each of the learner. A total of fifty (50) radio, USB, school supplies, contextualized reading books were provided to the learners.

3. Researcher – made contextualized reading manuals were distributed and provided to all participants as their reading materials used at home.

4. Since learners in Sitio Kilablab is in the far-flung areas, the researchers collaborated with the Local Government Unit for the hiring of para-teachers as reading tutors for learners.

5. Capacity Training in teaching reading was given to the stakeholders who served as reading tutors to the non-readers.The successive period of implementation using pull -out system and small zonal community reading sessions were done every Monday, Wednesday, and Friday from 8:00 to 12:00 in the morning was conducted by volunteered stakeholders. Proper monitoring was made for the sustainability of the program.

4. Action Research Method

The primary participants of this action research are the learners in Sta. Ana Elementary School. They were the identified learners with reading difficulties. Other participants are the teachers, parents, and stakeholders who supported in the implementation of the intervention program.

4.1. Participants and/or other Sources of Data and Information

Table 2. Number of Participants

Types	Number of Participants
Learners	50
Parents / Guardians	50

Teachers	35
School head / Researcher	1
Public School District Supervisor	1
Stakeholders (Reading Tutors)	20
Total	157

The participants of this action research were the fifty (50) learners from sitio Kilablalab, fifty (50) parents or guardians of the learners, thirty-five (35) permanent teachers, one (1) school head and one (1) Public Schools District Supervisor, and twenty (20) stakeholders or reading tutors with a total of one hundred fifty-seven (157) participants.

4.2. Data Gathering Methods

Proper entry protocol was followed before conducting this action research. The Phil-IRI or Philippine Informal Reading Inventory reading assessment tool was used as the basis of learners reading performance. The researchers used the purposive sampling and select all the identified learners who were non-readers as participants of this study. Before the conduct of the interventions, an interview to the participants was conducted after the reading assessment. An adopted survey questionnaire was then distributed for determining learners' level of Perceptions on the challenges in modular distance learning using the printed self-learning modules from the study of Lapada (2020), on "Covid-19 Awareness, Distance Learning Education Experiences and Perceptions towards Institutional Readiness and Challenges". After the ten (10) month implementation of the interventions of project ASPIRE, a post interview, FGD or Focus Group Discussion, and post survey questionnaires were given to the participants in evaluating the level of effectiveness of the study.

In collecting reliable responses from the selected respondents, the researchers conducted clear orientation to all participants on the main purpose of the study. Lastly, an approved letter from the division office signed by the Division Superintendent to conduct the study was handed individually to all the participants for their reference. An informed consent letter and ethics of conducting action research was followed to ensure confidentiality, privacy, and anonymity during and aftermath of data collection this action research study.

4.3. Data Analysis Plan

The four-point Likert scale is used in determining the level of challenges faced by the learners in modular learning. The scale, range, description, and interpretation of participants' responses were the following: 1 – strongly disagree 2 - disagree 3 – agree 4 – strongly agree. This study used different descriptive statistical tools in analyzing the data. For Problem 1, descriptive statistic using frequency, percentage, and mean were used to analyze the level of challenges faced by the learners in modular learning modality.

For Problem 2, a researcher-made survey questionnaire was used in the determining the level of perceptions on the effectiveness of project ASPIRE interventions to the learners reading performance. For problem 3, the result of the one-shot pretest and post test was used in tabulating the comparative result of learners' improvement in

reading. Frequency, percentage, and mean were used to tabulate the result of this action research.

5. Discussion of Result

1.What are the challenges faced by the learners in modular learning modality?

Table 1. Level of Challenges Perceived by Learners in Modular Learning

Indicators	Mean	Interpretation	Level of Challenge
1.Challenges in recognizing words, phrases, and sentences in the lessons in the modules.	3.546	Strongly Agree	High
2.Challenges on the lack of knowledge in understanding the concept of the lessons in the self-printed modules.	3.450	Strongly Agree	High
3. Challenges in following instructions due to no direct communication of teachers and learners.	3.415	Strongly Agree	High
4. Challenges In accomplishing the tasks alone.	3.400	Strongly Agree	High
Mean Level of Difficulties	3.452	Strongly Agree	High

Legend: 3.26-4.00 - Strongly Agree 2.51 – 3.25 - Agree
 1.76- 2.50 - Disagree 1.00- 1.75 - Strongly Disagree

Table 1 presents the Mean level of participants challenges in the modular learning. The result revealed that on the average, the participants or the learners Strongly Agree that they faced high level of challenges in their studies using the printed modules with their average total mean ($\bar{x} = 3.452$). This means that they experienced extreme difficulties or struggles in understanding their lessons in the modules. The indicator with the highest mean is on the “Challenges in recognizing words, phrases, and sentences in the lessons in the modules *with* a mean of ($\bar{x} = 3.546$).

This signifies that they cannot understand their lesson since they cannot read the text written in the modules. While the indicator with a lowest mean is on the “Challenges In accomplishing the tasks alone with a mean of ($\bar{x} = 3.400$). This means that the learners encountered high level of challenges in accomplishing their daily task in their modules especially if their parents or guardians are not around working for food. The result implies that if learners will not be assisted in their studies, there is a big possibility that they will become of the LARDOS or learners At Risk of Dropping Out in school. This means that there is an urgent need of an alternative solution to aid their learning struggles to improve their performance.

2. What is the level of perceptions on the effectiveness of the interventions to the learners reading performance?

Table 2. Mean level of Perception of the Intervention Perceived by the Learners

Indicators	Mean	Interpretation	Level of Perception
1. I was able to recognize gradually the words, phrases, sentences, and paragraphs in the modules with the help of the radio – based lessons in reading provided to me.	3.710	Strongly Agree	High
2.I was able to understand simple instructions in the modules through listening in Radio - based lessons provided by my teachers.	3.552	Strongly Agree	High
3. I can do my task in the modules through the help of para-teachers who assisted me in my studies.	3.500	Strongly Agree	High
4.Contextualized reading manuals helped me to familiarize sounds, words and phrases.	3.428	Strongly Agree	High
5. Project ASPIRE contributed a lot in my reading performance, it is effective as an aid to my learning difficulties.	3.664	Strongly Agree	High
Mean Level of Perception	3.570	Strongly Agree	High

Legend: 3.26-4.00 - Strongly Agree 2.51 – 3.25 - Agree
 1.76- 2.50 - Disagree 1.00- 1.75 - Strongly Disagree

3. Is there an improvement of pupils' level in reading performance before and after the interventions?

Pre-test Reading Assessment					Post -test Reading Assessment		
Year level	Learner	Frustration	Instructional	Independent	Frustration	Instructional	Independent
1	7	10	0	0	2	5	0
2	8	9	0	0	1	7	0
3	12	10	2	0	1	9	2
4	9	9	0	0	3	5	1
5	8	7	0	0	1	5	2
6	6	5	0	0	0	5	1

Total	50	50	0	0	8	36	6
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Table 3. Comparative result of participants' reading performance

Legend:

a. *Independent Reading Level - the level at which readers function on their own with almost perfect oral reading and excellent comprehension (Flippo, 2014)*

b. *Instructional Reading Level- the level at which readers profit the most from teacher directed instruction in reading (Flippo, 2014)*

c. *Frustration Reading Level - the level at which readers find reading materials so difficult that they cannot successfully respond to them (Flippo, 2014)*

The result reveals a decrease of the number of non- readers from pre-test to post -test. It was evident that fifty (50) of the frustration readers were able to improve their reading performance. In the post test a total of thirty-six (36) learners belonged to instructional level. From zero (0) independent readers, six (6) of them become an independent reader which means they can read accurately and comprehend what they are reading. The prevalence of instructional and independent learners proved that the interventions contributed greatly to the improvement of their reading performance. The remaining eight (8) frustration readers remain to be the focus of the intervention. Intensive reading sessions by the volunteered stakeholders and para-teachers were done to the remaining type of learners to improve their reading performance

6. Conclusion

Based on the findings in this study, the researchers conclude that challenges or difficulties in modular learning specifically in reading can be improved through Project ASPIRE. With the interventions such as using blended learning with modular and radio - based instruction, reading sessions with the para-teachers and volunteered stakeholders, using contextualized reading manuals and with the full provision and support of the stakeholders to the learners, challenges and difficulties in learning can be minimized. Therefore, the school initiatives should be sustained and properly monitored for continuous improvement.

7. Recommendations

In the light of above conclusions, following recommendations are made:

1. Based on the findings gathered, it is recommended that the interventions should be implemented in all schools in the Division of Misamis Oriental. Local Government Units in Misamis Oriental should support school's initiative for learner's continuous improvement.
2. Installation of radio-based instruction on air should be provided to aid learners difficulty in reading specially learners living in the far-flung areas.

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DepEd Order 12 s. 2020, Adoption of The Basic Education Learning Continuity Plan for School Year 2020-2021 In Light of The Covid-19 Public Health Emergency

Project LVR for ISP Lesson Video Recording: An Intervention for Gap in Instructional Supervisory Plan

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Abstract. This study explored Lesson Video Recording (LVR) as a way to complete the school head's Instructional Supervisory Plan (ISP) in order to give Technical Assistance to teachers, improve teaching and learning skills and comply teachers' teaching demonstration. Through a purposive sampling, teachers who were not yet observed in their classes were asked to video record their teaching demonstration. Then, the school head and the teacher watched the LVR together for post conference before another LVR would be done. Rating of teachers using the Class Observation Tool (COT) of the Department of Education and post written assessment of students from first LVR to third LVR were compared using descriptive statistics. Results revealed that COT of teachers have significant difference. Same was true to students post written assessments. There was an increase of rating of teacher's teaching demonstration and the score of students' written assessments. LVR is still applicable in the new normal learning delivery.

Keywords: Instructional Supervisory Plan, Lesson Video

1 Introduction

Instructional Supervision (IS) is one of the responsibilities of a school head. He has to make an Instructional Supervisory Plan at the beginning of the school year in order to observe teachers' teaching demonstration and give Technical Assistance (TA) to his teachers of at least four times in a school year to improve teaching and learning skills. In the National Competency-Based Standards for School Head-Training and Development Needs Assessment (NCBTS-TDNA), Instructional Supervision (IS) is the fourth competency strand of Domain 2 which is Instructional Leadership.

This time NCBTS-TDNA is replaced with Philippine Professional Standards for School Heads (PPSSH) to align with teachers' Philippine Professional Standards for Teachers (PPST). Instructional Supervision in the PPSSH falls under Domain 1, Leading Strategically, Strand 1.7, which is Monitoring and Evaluation processes and tools. Even to just consider the Career Stage 1 of the school head in this strand, which says, "Display knowledge and understanding of monitoring and evaluation processes and tools to promote learners' achievement"? This leadership quality of a school head needs to be developed and done to achieve improved learning outcomes and teacher quality. As Hammond (2015) said that "the quality of teachers and other school inputs are related to students' achievements." One of the school inputs is Instructional Supervision as part of the monitoring and evaluation processes of the school head to his teachers. It has a tool to be used while observing classes which is the Class Observation Tool (COT).

Supposedly, based on the COT roll-out, teachers should be observed at least 4 times in a school year. With 28 teachers in the institution, it is expected that the school head could conduct 112 instructional supervisions. But only 48 observations were made due to the number of meetings, seminars and other activities the school head has attended in the division and regional level which hindered the observation of classes. There was no Master Teacher in the school at that time to assist the school head.

In order to accomplish the Instructional Supervisory Plan (ISP) and meet the purpose of ISP, Lesson Video Recording (LVR) was introduced in this project. LVR is one of the reflective professional development practices mentioned by Tice (2011) which can improve teaching and learning skills. Tice further said that LVR develops teacher awareness towards her own actions because it is a useful way of getting information about one's teaching that he may not be aware of. It can be determined how much time the teacher allocates for a student to talk, whether he gives equal attention to all students, his movements in the classroom and even the tone of his voice. Through LVR, teachers will be able to observe the different learning styles, attitudes and values of the learners. In this practice, teachers will improve their techniques to facilitate learning. They will be able to facilitate the full potential of the learners.

1.1 Project Objectives

This project complied the Instructional Supervisory Plan (ISP) for the school year through Lesson Video Recording (LVR) of teachers' teaching demonstration. Specifically, it aimed to:

- 1.1.1 comply the year's Instructional Supervisory Plan (PPSSH Guiding Principle 6).
- 1.1.2 improve teaching delivery skill (PPSSH Guiding Principle 4.)
- 1.1.3 improve learning skill (PPSSH Guiding Principle 1)
- 1.1.4 provide technical assistance to teachers (PPSSH Guiding Principle 3).
- 1.1.5 utilize Lesson Video Recording (LVR) in teaching demonstration for school head's class observation. (PPSSH Guiding Principle 1 & 3)

1.2 Project Outcomes

The outcomes of this project were the following:

- 1.2.1 complied the Instructional Supervisory Plan.
- 1.2.2 improved teaching delivery skill as manifested in the teachers' COT performance indicators.
- 1.2.3 improved learning skill as manifested in the written post assessment scores of the students.
- 1.2.4 provided Technical Assistance to teachers.
- 1.2.5 utilized Lesson Video Recording in teaching demonstration for class observation/ Instructional Supervision and Technical Assistance

1.3 Project Direct Beneficiaries

These are the direct beneficiaries of Project LVR for ISP.

School Heads. They will consider Lesson Video Recording (LVR) of teaching demonstration as one of the authentic bases for instructional supervision and technical assistance to teachers. LVR will hasten the school heads' completion for the school year's Instructional Supervisory Plan. Technical Assistance to be given to teachers will be based on the submitted LVR of the teachers.

Teachers. Utilization of LVR develops teachers to become reflective which will then improve their teaching delivery skill and in dealing with their students. LVR serves as a tool to complete their teaching demonstration requirements in their COT portfolio for their IPCRF.

Students. When LVR will be shown to students, they will be inspired to improve their class performance and attitude toward school.

School. When LVR becomes a reflective practice among teachers, the school will increase enrolment and promotion and lessen dropouts because students can be monitored in the LVR.

2 Project Description and Methodology

2.1 Development of Project LVR for ISP.

In this project, fifteen teachers in the institution were encouraged to share their views about Instructional Supervisory Plan (ISP), Instructional Supervision (IS), Classroom Observation Tool (COT), Office Performance Management System (OPCRF), Frequency of Class Observation and its importance during the Focus Group Discussion (FGD) because they have different understanding on the above terminologies. During the FGD, it was found out that there was no teacher who was observed for four times as required for each teacher. Six of the teachers submitted themselves to be involved in this project since they were identified to have no Instructional Supervision since the first quarter.

Assess. The Instructional Supervisory Plan of the school was not yet complied as of the month of December, 2018. Supposedly, based on the COT roll-out, teachers should be observed at least four times in a school year. With 28 teachers in this institution, it is expected that the school head could conduct 112 instructional supervisions. But only 48 observations were made. The school head needed to double his effort in order to give Technical Assistance (TA) to teachers. TA could help teachers to improve their teaching delivery skill. In this way, learning skill of students would also improve. As a domino effect, it would improve school performance indicators like increase promotion and lessen dropout rate. Moreover, the school needed to do four instructional supervisions to each teacher to comply the 100% class observation of the first Key Result Area in their Office Performance Commitment Review Form (OPCRF). The teachers as well needed four teaching demonstrations to comply the requirement in their COT portfolio for their Individual Commitment Review Form (IPCRF).

Table 1. Frequency of Class Observation made by the School Head

Number of Observation Made	Number of Teachers Observed	Total Number of Observation	Percentage of Observation
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3 times	9	$9 \times 3 = 27$	24.11 %
2 times	8	$8 \times 2 = 16$	14.29 %
1 time	5	$5 \times 1 = 5$	4.46 %
0	6	0	0
TOTAL	28	48 observation	42.86%
Expected	Number	of	28 teachers X 4 = 112
Observation		observation	= 100%

Analyze. A Root Cause Analysis was done to know the reasons of missing to conduct class observation or instructional supervision. A number of meetings, seminars, and other activities the school head has attended in the division and regional level hindered the observation of classes. There were also various activities in the school which disrupted the schedules of the instructional supervision. There were times teachers requested for reschedules of teaching demonstration because of the ancillary works they needed to accomplish or they were disturbed by some personal problems.

Act. Teachers who have not been observed and given Technical Assistance from June to December were asked to do the Lesson Video Recording (LVR) in order to comply the requirements for COT portfolio for their Individual Performance Commitment Review Form (IPCRF) and to help them improve their teaching delivery skill which eventually would improve the learning skill of students. Recording and uploading were taught to the teachers by the ICT coordinators and ICT students. Correct steps before and after doing the LVR as limitations of this project were discussed during LAC sessions before the implementation of this project.

2.2 Project LVR for ISP Expectations and Rules

2.2.1 The participants were expected to be CDO:

Intellectual Competence. Each participant should know how to manipulate the needed gadget (Laptop or Smart phones) for LVR.

Intellectual Dedication. Each participant would actively do the required LVR. He should be committed to review his LVR and reflect for improvement.

Intellectual Optimism. Each participant would do the LVR cheerfully with a positive perspective that LVR would improve teaching and learning skills.

2.2.2 Based on the intellectual expectations, other rules for a successful LVR for ISP were the following:

Integrity. Each participant should do the LVR truthfully. He would not manipulate the video recording with all honesty. He would not alter his LVR for higher rating. He should review his LVR for his personal growth and professional development.

Tenacity. Each participant would consider doing LVR as part of his work as a teacher not only for compliance to the required number of teaching demonstration/class observation but also as his reflective practice to improve his teaching delivery skill for students to improve learning.

Urgency. Each participant should consider time. He should manage his time for the first to third or fourth LVR with post conference in between.

2.3 Data Collection, Analysis, and Ethical Considerations

This project used Focus Group Discussion (FGD), COT rating in numbers 1-6 indicators and LVR form in the data collection. In the FGD, fifteen teachers in this institution were gathered and shared their views about Instructional Supervisory Plan (ISP), Instructional Supervision (IS), Classroom Observation Tool (COT), Office Performance Commitment and Review Form (OPCRF), Frequency of class observation and its importance. Such terminologies were discussed during the Focus Group Discussion (FGD) because the teachers have different understanding. FGD is important in this project to gather the different insights of the participants in order to develop a better solution to the need - the need to comply the Instructional Supervisory Plan (ISP) and COT portfolio for the teachers' Individual Commitment Review Form (IPCRF). COT rating in numbers 1-6 indicators is part in this project, to assess the teaching delivery skill of teachers. Numbers 1-6 indicators in COT define teachers' qualities in content, knowledge and pedagogy, learning environment and diversity of learners (PPST, Domains 1-3). These are some of the Philippine standards of a quality teacher. On the other hand, LVR form is included in the data collection because it is in the form the scores of the students and the reflective practices of teachers are found. The teacher is going to write the issues, concerns he has observed while reviewing his LVR, his intervention and innovation he plans to do to improve his teaching delivery skill and to improve the learning skill of his students.

Finally, teachers who were involved in this project voluntarily committed to be part on condition that their names are withheld and results are taken with utmost confidentiality. Students were informed that doing LVR was for school consumption only. LVR would not be published.

3 PROJECT RESULTS AND DISCUSSION

3.1 LVR for ISP Framework

This project is anchored on the study of Tice (2011) that Lesson Video Recording is one of the reflective practices which can "improve teaching and learning skill" and can be used as authentic basis for instructional supervision and technical assistance. For Philippine Performance Standards for School Heads Domain 1 Leading Strategically Strand 1.7.1 which is Monitoring and Evaluation processes and tools. Even to just consider the Career Stage 1 of the school head in this strand, which says, "Display knowledge and

understanding of monitoring and evaluation processes and tools to promote learners' achievement" This can be considered as another way to comply the Instructional Supervisory Plan for OPCRf and COT portfolio for IPCRF.

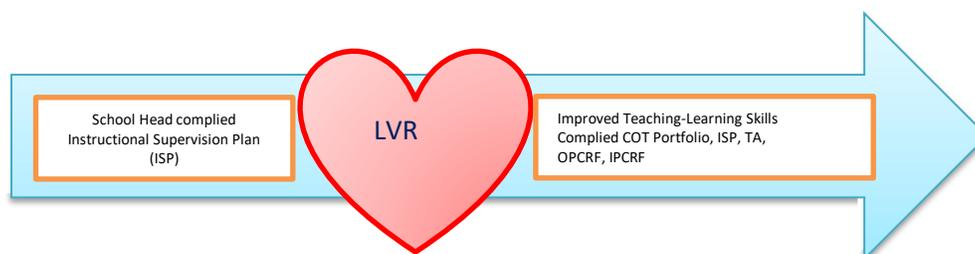


Figure 1. LVR Framework

The LVR is at the center of the framework in this study because through LVR the school head can comply the Instructional Supervisory Plan (ISP). And because of LVR, OPCRf and IPCRF can have an Outstanding rating because TA will be provided to teachers. Teachers will improve their teaching skill and comply their COT portfolio and learners will improve their learning skill.

3.2 School head and Teachers Learning Experiences when exposed to LVR for ISP project

Lesson Video Recording (LVR) experience of the participants in this project found better results in the practice. They realized that they became more reflective to their approaches to teaching and in dealing with their students. They loved to review their LVR because they could always find weaknesses that needed to be improved. They could not also deny once suggestions were given by the school head because both the teacher and the school head reviewed the LVR.

One participant said: "I better have to agree and accept suggestions because I couldn't deny the video..."

The other participant attested: "Yes, I learned to be honest and humble."

And another participant added: "I began to love and understand my students because I have seen in the video that one was sad, the other was shy and another was a bully!" "I have even discovered a student who cheated!"

The six participants in this study affirmed that LVR has given many benefits. It did not only help them comply the COT-RPMS portfolio, but it has enhanced their teaching skills and attitudes towards teaching and towards their students. It even helped them to teach naturally in the absence of the school head for actual class observation. The school head on the other hand found this practice very helpful to his Instructional Supervision and gave him comfort, confidence and authentic basis on giving instructional supervision and technical assistance.

4 Conclusion

Lesson Video Recording (LVR) is one of the Reflective Practices elaborated by Tice (2011). It is video recording one's teaching demonstration in order for the teacher to observe how he is doing in his class. He considered this type of reflective practice as a good way to improve teaching and learning skills. LVR in this project was used as the teachers' teaching demonstration for school head's classroom observation using the COT especially when the school head cannot observe actual teaching demonstration because of a training, meetings, seminars or an unexpected visitor to attend to. It is an authentic proof for Technical Assistance during post conference because both the school head and the teacher could review what has transpired in the class. Teachers learned to be honest and humble to accept suggestions because their LVR exposed their actual teaching demonstration.

Through LVR, Instructional Supervisory Plan for KRA 1 in the OPCRF of the school is complied, COT-portfolio for IPCRF is completed.

5 Recommendation

This project is still applicable in this pandemic time because the school head are required to have two classroom observations for the school year as mentioned in DM-PHROD 2021-0010, s. 2021. Since our school does not have the face-to-face classes, the teachers choose the second option provided by the said DepEd Memorandum which is similar to this project- Lesson Video Recording.

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Facebook Classroom as Alternative Learning Management System for Remote Learning

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Abstract. Social media platforms became instrumental in the delivery of instruction during the pandemic. The features of Facebook and Messenger were very useful in providing immediate feedbacks to learner's outputs, monitoring the academic progress, sharing of accessible learning materials, repository of supplementary learning resources and interactive platforms for discussions and communication of for parents, learners and learning facilitators. Thus, the researchers sought to understand how the intervention coined as Facebook Classroom, a Facebook group platform, could help learners in their remote learning. Analysis of responses from students were conducted. Results revealed that the use of Facebook Classroom indicated how learners found the intervention easier to access files, communicate with their co-learners and teachers and manage their academic activities. Although they are still hopeful of the implementation of face-to-face learning as it allows them to build human connections and meaningful learning. It is recommended to utilize Facebook classroom as alternative learning management system for remote education in public schools due to affordable access, general usage and friendly features. Keywords: Facebook, Facebook Classroom, distance learning, alternative learning management system, Facebook as education tool

1 Context and Rationale

Distance learning has already been introduced by several institutions as a response to the advancement of information and communication technology (ICT) as applied in distance learning. The printed materials for courses were shifted towards virtual classrooms (Arinto, 2016). In fact, the following schools implemented distance learning for decades: University of the Philippines Open University, Polytechnic University of the Philippines Open University, Philippine Women's University, Pamantasan ng Lungsod ng Maynila, CAP College Foundation, Inc., Central Luzon State University, Open and Distance Learning Foundation of the Philippines, Philippine eLearning Society and Philippine Society of Distance Learning. These institutions were instrumental in providing distance learning for undergraduate and graduate students who are hindered by distance between their home and delivering institution, physical disabilities and financial constraint (Sabio and Sabio, 2013).

The delivery of distance education was investigated in various aspects. For instance, Lopez (2019) investigated how distance education for review classes of psychometrician

helped shape the perceptions of review centers and students towards distance learning. Participants agreed that it provides them flexibility, practical and motivating as they perform responsibilities in their workplace. However, review centers perceived distance education where they can only develop materials for review programs and ensuring these are accessible to reviewees. There should be a clarification of how distance education requires planning, logistic approach and providing solutions to factors which might affect the delivery of distance learning.

Efforts were implemented to shift the traditional set-up of distance learning through adoption of technological innovations which could help in the delivery of quality distance education. According to Alfonso and Garcia (2015), the University of the Philippines experience in implementing Open and Distance eLearning (ODEL), innovations in research, extension and instruction. Openness towards student-centered, integration of analytics in assessment, digital tools for course materials and implementation of Massive Open Online Course (MOOCs) became a trend in the institution's distance education.

The emerging trend of distance learning became instrumental in continuous delivery when COVID-19 pandemic paralyzed major parts of education system. The implementation of distance learning was adapted by the Department of Education in order to continue the School Year 2020 – 2021 amidst the COVID-19 pandemic while still adhering to the President's mandate on prohibiting the normal face-to-face learning (DepEd Order No. 12, s. 2020).

The DepEd Order No. 12, series of 2020 on Adoption of the Basic Learning Continuity Plan for School Year 2020-2021 in the Light of the COVID-19 Public Health Emergency formally presented the Distance Learning Modality which comprised of three types: Modular Distance Learning (MDL), Online Distance Learning (ODL), and TV/Radio-Based Instruction. Clustered under the Modular Distance Learning (MDL) are Digital Modular Distance Learning and Printed Modular Distance Learning. With all these modalities, the use of innovative learning pedagogies to reach out and form and inform the class, provide instruction, and retrieve feedback from the learners, had to take place.

However, with the prevailing implementation of distance learning, students have identified self-study as one of the major problems. In addition, there is a challenge in terms of resources (Dangle and Sumaoang, 2020). Thus, the action research was conceptualized to help learners in accessing resources given the set-up they have in their homes. Although it is undeniable how access to supplementary materials is a major problem for learners in their self-paced learning, innovation in technology produce one of the most accessible technology used by everyone called Facebook. Around 83 million Filipinos are Facebook users with India as leading country at 320 million users (Tankovska, 2021). It has brought easy access to sharing information, media and learning materials. Facebook was originally created for the students at Harvard University for information and socialization purposes (Hall, 2012). Until now, this application has eventually proven

itself as a valuable means of communication. According to Nguyen (2017), skepticism on Facebook as educational tool still persists even with how it is currently widely used around the world. The technical and social impacts of Facebook brought controversies such as threats on data privacy, cyberbullying, anonymity and digital problems. Even with the prevalence of doubts towards Facebook, attempts on integrating Facebook as educational tool was conducted to measure its impact on their learning. Brown (2012) found out an alignment of teachers and students' perception towards the usage of Facebook in their classes. On the other hand, Hassan (2014) revealed how learners answers questions actively and even shares additional knowledge without an exchange of credits or grades. Nguyen (2017) found out how Facebook helped in communication, collaboration and sharing of resources or materials but skeptical views on the empowering role of Facebook is still present within learners. Finally, Kalelioglu (2017) showed the advantages of Facebook as Learning Management System since it has similar features with other LMS tools and how it is helpful in synchronous and asynchronous sessions.

The review shows unanswered question on how far we can use it as a channel for education in distance learning. This was explored by the researchers in terms of utilization of Facebook could help as a virtual classroom. The findings of this study could help teachers in utilizing the capabilities of social media platforms as accessible medium of communication for learning. This will also allow ICT Coordinators to provide frameworks and policies in administering Facebook Classrooms. Furthermore, the utilization of Facebook will also help learners and teachers who are having a hard time in using other virtual classrooms such as Google Classroom and Moodle due to its compatibility and Internet connectivity issues.

1.1 Action Research Questions

In the conduct of this action research, the researcher will seek to answer the following questions:

1. How is Facebook Classroom developed?
2. How do learners evaluate Facebook Classroom as their learning tool?

1.2 Proposed Intervention

The researcher innovated Facebook Classroom, a social media platform geared towards provision of instructional materials, classroom announcements, forms etc. This practice will be shared to teachers who are willing to create Facebook classroom in their subjects.

Development of Facebook Classroom. The researcher created Facebook Group set privately. The learners searched for the group name and the administrator will accept their request. This will help in ensuring the privacy and safety of learners in cyber space.

The Facebook classroom is composed of Classroom wall, Group Chat, Cover Photo, Access to Photos, Videos and Files, Calendar and Polls.

Uploading of Instructional Materials. Videos, documents, presentations, pdf files and other related learning resources will be uploaded in the Facebook Classroom. Large files will be stored in Google Drive. The Google Drive link of the file will be posted in Facebook Classroom.

Learners' Interaction. The learners can interact through the comment section and polls. This can be done through posting a status in the Facebook classroom.

2 Action Research Methods

The study will employ qualitative method in analyzing responses from the participants.

Participants

The participants of the study are the Senior High School students of Zamboanga del Norte National High School who are currently admitted in their Facebook Classroom.

Data Gathering Methods

The qualitative data will be gathered through semi-structured interview. Set of questions will be prepared beforehand while follow-up questions will be given throughout the conversation to gather in-depth responses.

Data Analysis

The qualitative data will be analyzed through thematic analysis. Thematic analysis aims to gather themes from various responses which are commonly grouped based on their similarity.

3 Results

3.1 Development of Facebook Classroom

Figure 1 shows the screenshot of Facebook Classroom.

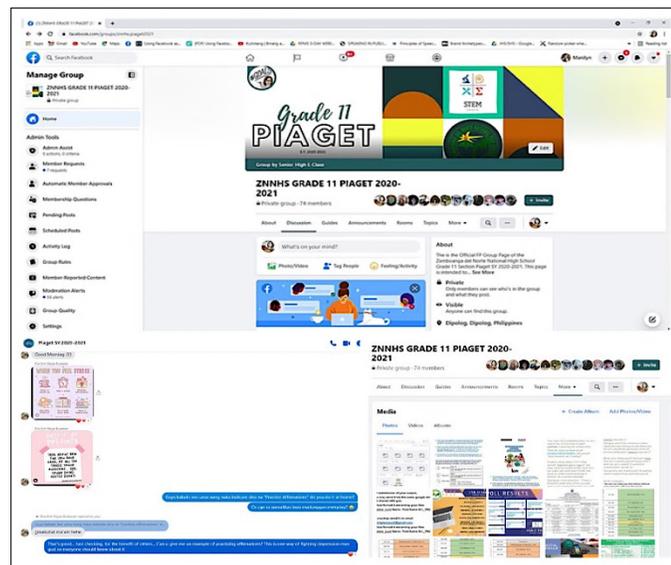


Figure 1. Facebook Classroom

3.2 Thematic Analysis of Responses

Participants were asked to share their experience in utilizing Facebook Classroom. Themes were devised from the responses:

- Convenience in Using FB Classroom
- Building Healthy Communication with Teachers and Co-Learners
- Keeps Track with Students Progress
- Concerns

Convenience in Using Facebook Classroom. Participants shared how Facebook classroom was easier and accessible due to its nature and compatibility with the younger generation as main users.

Sige sige naman namo magamit ang (We have been using) social media platforms and we already know the loop of it, we take a very good advantage with the that kind of setting, so it feels very exciting.

At first it was unusual... but from time to time we got used to it.

I thought it was unprofessional at first since it's mostly used for social media activities but then later on, I realize that ahmm very convenient pala siya kay ginagamit na man gud namo siya as students (since we have been using it constantly).

It is convenient and I am already familiar with app since I have used this since 2010.

I was relieved since FB because I am used to it in daily basis, and it was easier and convenient for me since I am familiar using the app rather than any other app which is introduced in the new learning method.

Building Healthy Communication with Teachers and Co-Learners. Participants shared how the use of Facebook classroom was a test of building healthy communication with co-learners and teachers.

Positive and it was good since teachers asked our opinion in terms of time convenience I can consider it as a classroom because I still give respect to my teachers, classmates Improve ang communication sa GC kay there are communication breakdown kay dili makasabot ang teacher sa query sa student ug kanang mawala na lang iyaha (There must be an improvement on how to handle communication lines between us and teachers)

Keeps Track with Students Progress. The Facebook classroom was also helpful in helping them track the progress of their outputs. With piles of outputs to be complied for various projects, learners need to access a tool which could help them in organizing their outputs.

One main advantage it that it will automatically notify us with the upcoming activity or the activities what we have done.

It can give you accurate information or send you links personally especially the videos that we need para makabalo mi unsay buhaton nga tasks (so we will be guided on the tasks to perform). So students are informed. It is good advantage because the pandemic is dangerous and it has helped us become safe while undergoing distance learning.

It is very effective to send instructions because FB is the most accessible app for us students unlike Google Classroom which needs Internet. There are still teachers who are having hard time to communicate through FB due to Internet problems.

Naay mga buhaton nga magamit ra jud ang FB classroom para macommunicate ang uban (Tasks can be easily done due to FB classroom)

We can receive latest news and updates from Facebook Concerns. Participants shared their concerns of the threats brought by Facebook tool. This confirms the findings of Nguyen(2017).

I was cool at it at first, but I can say the method is complicated especially with other students since nay uban nga dili ka gamit sa FB account. Naay possibility nga maleft behind (since others are not FB users. There could be possibility where they will be left behind possibly because of no Internet or access to devices).

Need lang improve and features then mahinay ang data usage then need namo magatang ug midnight kay para makapas mi sa mga activities. (Facebook should lessen the data consumption. It will greatly help learners perform activities using FB) Naa pud laing binuang mabutang sa Facebook nga masuhid sa ubang bata mainflucen nila ang kabuang sa Facebook kay dili na man dayun amcoqntrol unsay mapost sa Facebook. (There might be chances where bad things could occur due to how vulnerability of student users)

I can't still say kay easy ang method kay we can't say nga ang communication is easier kay manhinay oy maweak tungod sa power interruption dili jud siya totally makatabang ang Facebook as whole. (since there are times when Internet is very low and students have difficulty in accessing FB classroom. So, I can't say FB can really help us generally)

Murag nagpasa ra ko sa activities para na koy grades kay murag nafeel nako nga murag wala nagteach ang amoa teacher without checking kung unsa na amo na learn (I felt like I am just sending activities without learning something from our teachers. Teachers should push efforts in assessing what concepts we have learned)

4 Conclusion

Facebook, as an educational tool, has proven to be accessible, easy, effective, and user-friendly. The features it offers to the huge mass of users was very helpful for learners who are challenged with access to Internet and devices. Participants have shared the pros and cons of using Facebook as a tool for remote learning. Academic institutions planning to use FB as an alternative LMS should be able to capacitate teachers in terms of harnessing the potentials of FB as learning tool, nature of virtual world, learners' welfare, coordinating with members of school community and improving communication and collaboration with teachers and learners. Community stakeholders must also be tapped

so they can provide alternative solutions in terms of technical problems. From this, learners will be able to comfortably use Facebook classroom.

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Coping with Stress during the COVID-19 Crisis: The Case of the BS Nursing Students of Manuel V. Gallego Foundation Colleges, Inc. (MVGFCI), Cabanatuan City, Nueva Ecija, Philippines

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Abstract. This participative action research aimed to find out; (1) the stress experienced by the BS Nursing students of MVGFCI during COVID-19 pandemic crisis; (2) to find out the effects of stress caused by COVID-19 on students' attitude to school life and responsibilities; (3) to find out the stress coping strategies used by BS Nursing students of MVGFCI and its influencing effect on their attitude towards school life and responsibilities and; (4) to recommend an action plan to improve the stress coping strategies of students in a healthy way during and immediately after the COVID-19 pandemic crisis. Mixed methods research design was used and there were twenty-two (22) BSN students who participated in this study. The result showed that BS Nursing students expected the inability to comply with requirements due to limited access to WiFi, learning resources, and connection to their classmates is challenging. Meanwhile, stress affected their class standings, attitudes towards their life, perception of their surroundings, and inability to focus on their priorities. Their best coping is to set goals that would help their studies especially in finishing their academic requirements.

Keywords: stress, coping, COVID-19, action plan

1 Introduction

The COVID-19 pandemic is now a massive global health problem. This pandemic crisis is affecting the lives of many students, families, and communities. Many students across the world experienced stress, anxiety, and fear about this new disease. The fear of what could happen and when this pandemic crisis will end increases the stress, anxiety, and fear of our students.

This experience is very overwhelming, traumatic, and can cause strong emotions and sometimes mental health problems if not timely and properly addressed. The action of the Interagency Task Force (IATF) on COVID-19 such as social distancing can make people especially the youth feel isolated, detached, and alone which can increase stress, anxiety, and fear and some even developed an obsessive-compulsive disorder (OCD) behavior when they sanitize themselves too frequently with soap and water and alcohol. OCD according to medical books is one common long-lasting disorder in which a person has uncontrollable, reoccurring stressful feelings and thoughts (obsessions)

and/or behaviors (compulsions) that he or she feels the urge to repeat over and over. This stressful behavior at times can cause misunderstanding and fear.

Thus, understanding how one should cope with stress while preventing the spread of the COVID 19 virus healthily can make people more caring and the community more responsible and stronger. The best practice of coping with stress in a healthy way during the pandemic crisis can be a good model to replicate. This is the purpose and significance of the study.

1.1 Statement of the Problem

This study aims:

1. To find out if the BS Nursing students of MVGFCI experience stress during this COVID-19 pandemic crisis.
2. To find out the effects of stress caused by COVID-19 on students' attitude to school life and responsibilities.
3. To find out the BS Nursing students of MVGFCI's stress coping strategies and their influencing effect on their attitude towards school life and responsibilities.
4. To recommend an action plan to improve the stress coping strategies of students in a healthy way during and immediately after the COVID-19 pandemic crisis.

1.2 Significance of the Study

Identifying the various forms of stress experienced by the college nursing students at MVGFCI during the early part of the pandemic brought by COVID 19 and the effects of these stresses to the respondents provided the researchers the basic information in instituting appropriate strategies/measures to improve the coping strategies of the students to alleviate the effects of the COVID crisis to them. The school can use the results of this action research in formulating policies that can cushion the impact of the pandemic on the lives of the students, side by side with concerned units i.e. student services office and medical services unit. Likewise, the faculty can be coached in developing teaching strategies in alleviating the effects of the pandemic to facilitate effective learning conditions of their students amidst the crisis.

1.3 Conceptual Framework

The conceptual framework (Figure 1) indicates the focus of this research. This study determined stress experienced by the nursing students and its effects on their attitude to school life. People during this stressful time tend to use their coping strategies to overcome their stressors. Moreover, the students coping strategies and the effects of stress on their academic responsibility and attitude are also determined in this research. Furthermore, the data gathered from the study (stress experienced by BSN students, effects of stress, and coping strategies) is used to make an action plan to improve the stress coping strategies of students in a healthy way during and immediately after the COVID 19 pandemic crisis.

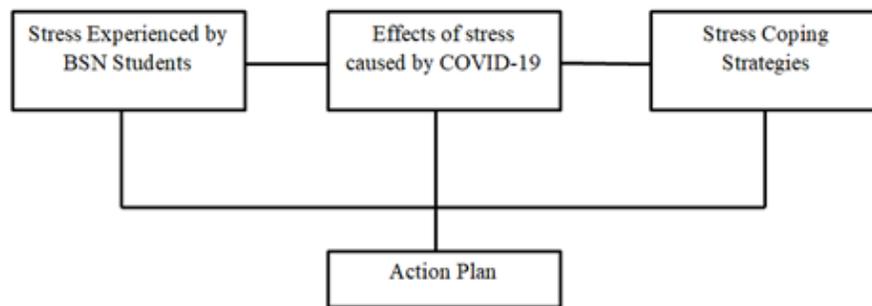


Figure 1. Conceptual Framework

2 Methodology

Twenty- two (22) students across the year levels enrolled in the BS Nursing program of MVGFCI during the first semester of the SY 2021-2022 were the respondents of this action research. A survey questionnaire developed by the team of researchers was utilized to answer the statement of the problem of this study. It was sent via the Google form to all student respondents and they were given ample time to answer and send back the accomplished survey questionnaire to the researchers.

The questionnaire is composed of three major parts. The first part is made up of five statements to enumerate and describe the numerous types of stress experienced by the students during the early part of the quarantine period. Each statement was rated by the respondents using the 4-point Likert Scale where:

1.0 to 1.75 – strongly disagree 1.76 to 2.50 – moderately agree
 2.51 to 3.25 – agree 3.26 to 4.0 – strongly agree

The second part with six items identified the effects of stress in the respondents' lives. The last part consists of 15 statements that enumerate the coping strategies employed by the students to alleviate their stress during the lockdown period.

All the data that was collected was analyzed by getting the mean and standard deviation of the responses using the Statistical package for the Social Sciences (SPSS).

3 Results

Table 1 shows the respondent's expectations during the quarantine period. With regards to the respondent's expectations during the quarantine period, they agreed that they expected not to comply with the requirements in the school due to limited access to WIFI connections ($x=3.07$). Aside from limited access to the internet connection, respondents agreed that they have a limited resource to complete their requirements ($x=3.00$). They also find it difficult connecting with their classmates and mentors with a mean of 1.85 and 1.80 respectively. Although in general, they experienced difficulties in their academics, it

is noteworthy that they conflict with themselves due to their inability to address personal issues having the least mean of 1.50.

Table 1. Stress experienced during Quarantine Period

I. During the early part of the quarantine period (ECQ) in the province of Nueva Ecija, I expected the following.					
NO.	Statement Item	Mean	Std. Dev	Rank	Verbal Interpretation
1	having difficulty communicating with my mentors;	1.80		4	moderately agree
2	inability to comply with requirements in school due to limited access to WIFI connections;	3.07		1	agree
3	connection with my classmates is challenging	1.85		3	moderately agree
4	resources (journals, books, and e-materials) to complete my requirements for all the courses I am currently enrolled in are limited; and	3.00		2	agree
5	conflict with oneself due to inability to address personal issues	1.50		5	disagree
	General Weighted Mean:	2.24	0.66		moderately agree

Legend:

1.0 to 1.75 – strongly disagree 1.76 to 2.50 – moderately agree

2.51 to 3.25 – agree

3.26 to 4.0 – strongly agree

Among the stress they experienced, it greatly affected their class standing due to limited resources ($x=3.20$) followed by their ability to focus on priority, attitude towards life, and perception of everything around me having a similar mean of 3.13. While the relationship with their significant people and spiritual connection least affected by stress with a mean of 1.50 (Table 2).

Table 2. Effects of Stress in the Respondent's Life

II. The stress that I experience affects my..:				
no.	Statement Item	Mean	Rank	Verbal Interpretation
1	ability to focus on my priorities;	3.13	2	agree
2	class standing due to the limited resources that I have;	3.20	1	agree
3	relationship with my parents, friends, classmates, and significant other;	1.50	3	disagree
4	spiritual connection with God;	1.50	3	disagree
5	attitude towards life	3.13	2	agree
6	perception of everything around me	3.13	2	agree
	General Weight Mean	2.60		agree

Legend:

1.0 to 1.75 – strongly disagree 1.76 to 2.50 – moderately agree
 2.51 to 3.25 – agree 3.26 to 4.0 – strongly agree

Despite the stress they had experienced, students were able to cope with it (Table 3). They set goals to help them to study amidst of pandemic having the highest mean of 3.67. They were also able to develop personal strategies to get back on track and focus on their study ($x=3.60$). Apart from developing positive coping strategies, they also worry about the negative effects of COVID-19 in the Philippines ($x=3.53$). Meanwhile, they find themselves overwhelmed with COVID 19 updates that I shut down completely got the lowest mean of 2.25. This means that students tried to stay calm and developed a healthy coping amidst the COVID-19 pandemic.

Table 3. Coping Strategies of BS Nursing

III. To cope up with the stress I am experiencing, I do the following:				
No.	Statement Item	Mean	Rank	Verbal Interpretation
1	talk about my problems with a support person (parents, friends, and loved ones);	3.40	5	strongly agree

2	I engage in different relaxing activities (meditation, calming techniques, listening to soft music);	3.30	8	strongly agree
3	try to identify my problems and then put into action some potential solutions;	3.27	9	strongly agree
4	I choose a natural and healthy form of stress relief (running, yoga, swimming, walking, dance, and others);	3.30	8	strongly agree
5	I make light of a stressful situation by having fun and find humor in everything	3.33	7	strongly agree
6	I practice relaxation techniques whenever I hear news about COVID 19	3.40	5	strongly agree
7	I seek out emotional support from others every time there is news about new cases of COVID 19	3.40	5	strongly agree
8	I try to find the health information that I need to understand COVID 19 more	3.47	4	strongly agree
9	I find myself so overwhelmed with COVID 19 updates that I shut down completely	2.25	12	moderately agree
10	I find it difficult to find someone to confide in about my anxiety relating to COVID 19	2.30	11	moderately agree
11	I worry about the negative consequence of these stressful events in the Philippines	3.53	3	strongly agree
12	I develop personal strategies to get me back on track and focus on my study	3.60	2	strongly agree
13	I take time to relax and be free from new about COVID 19	3.37	6	strongly agree
14	I keep thinking that there's not much I can do to help myself and my family	3.10	10	agree
15	I set goals to help my studies during the pandemic	3.67	1	strongly agree
	General weighted mean:	3.45 (sd=0.40)		strongly agree

Legend:

1.0 to 1.75 – strongly disagree 1.76 to 2.50 – moderately agree
2.51 to 3.25 – agree 3.26 to 4.0 – strongly agree

4 Discussion

The BS Nursing Students of MVGFCI experienced the impact of the COVID-19 crisis. They encountered difficulties during their studies to comply with all the requirements and difficulties in communicating to their teachers and classmates all because of the limited access to WIFI connections.

In a recent study by Elmer et. al., (2020), social relationships of individuals are likely to be affected by the crisis in different ways. Social relationships are conduits of social support. In times of crisis, social support may be more important than ever. But at the same time, physical proximity and opportunities for interaction are important in developing and fostering social ties. As face-to-face interactions and random encounters are minimized due to the social distancing measures, individuals likely focus on those relationships that are spatially close, most meaningful, or most established.

The respondents experienced stress because of this crisis, especially in their academics. The respondents experienced stress because of their class standing due to limited resources, they think they will get a low grade because they did not comply with the requirements of the teachers. This crisis affects the focus of the respondents from their academics and because of unexpected circumstances, the focus will turn to anxiety then the mental health of the respondents will be varied and they absorb more stress. Most of the respondents experienced stress especially on their academics and focus priorities, but the relationship with their friends, family, and classmates is not affected by the stress as well as their spiritual life.

Even the respondents were having stress during this crisis, they developed coping strategies to cope with the stress specifically in their academics by setting up goals for them to continue pursuing their dreams in life. The respondents make strategies to cope with the other stress experienced by developing their personality, being physically fit by doing exercise, and taking time to relax, practicing the health protocols to avoid this disease, giving emotional support for everyone that is suffering from diseases, and also suffering on emotional and mental health because of this pandemic.

5 Conclusions

The following has been concluded based on the results of this study:

1. Students experienced stress due to the inability to comply with the requirements due to limited internet connection, limited resources, difficulty communicating with their classmates and teachers.
2. Stress also affected their class standings, their focus on their school, attitudes towards life, and their perception of themselves.
3. Students developed coping strategies by setting goals that can help them study amidst the pandemic and developed personal strategies to get back on track.

4. In general, students experienced academic stress that resulted in poor academic performance. Meanwhile, they developed healthy coping strategies to catch up on their academics.

6 Proposed Strategic Measure to Improve Coping Strategies amidst Pandemic

6.1 To the School:

1. Improvement of instructional practices and strategies through flexible teaching Tool and Materials.
2. Follow through by activating the Students Affairs Office function in a way that is not stressful
3. Create or activate the Parents Teacher Association.

6.2. To the Teachers:

1. For teachers, model calmness and self-control.
2. Flexible deadline on the students' activities and assignments.
3. Provide choices for the assignments that can help them have some control over the environment.
4. Post the daily class schedule so that they know what the teachers can expect from them.
5. Encourage involvement in extracurricular to help alleviate some anxiousness through exercise and a sense of social belonging.
6. Continue monitoring students' progress in a way that is not stressful to them.
7. Regularly check with parents so you can share your observation and better understand the cycle of mood fluctuation more effectively.
8. Provide slow activities for slow students to catch-up
9. Come up with programs to encourage social interaction such as small-group work.
10. Engage the involvement of parents to work closely with the school in managing students experiencing academic pressure.
11. Come up with information drive about mental health

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Teacher's Communication, Compassion, and Consistency as Coping Mechanism for Students' Mind-wandering during Modular Distance Learning in Times of COVID-19

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Abstract. As schools all over the country adapt distance learning modalities, students are faced with difficulties from learning at home. Social disengagements and various forms of personal and social anxieties call for emotional and psychological support among learners. A coping mechanism is now relevant more than ever. The unexpected change in the learning environment can trigger stress and fears among learners that can leave a mental scar. Hence, this study explored teacher's communication, compassion, and consistency as a way for a student to focus than wander. The SHS taking research are considered participants in this study. A simple, non-threatening, brief tool was developed. It allows students to measure their experience in the past two grading period and describe it as well. Both quantitative and qualitative data are interpreted. Results of this study suggest that the coping mechanism employed by the teacher is effective for the students to overcome mind-wandering. Compassion and consistency of the teacher are highly recognized by students as motivating factors. While communication has been redefined due to the current situation. With the implication of the results, other factors that cause or relate to students' perceived difficulty can be investigated. Lastly, other variables that help students cope in their difficulty is recommended for future study.

Keywords: compassion, consistency, mind-wandering, teacher-student communication

1. Introduction

"Kumusta ka?" (How are you?) As we are facing and fighting against the effects of the COVID – 19 pandemic, this question is always ask even persons have been seeing each other constantly. It is generally understood that the question denotes a much deeper inquiry of one's being and wellness aside from physical condition.

In the context of education, DepEd Secretary Leonor Magtolis Briones **said in response to the call of suspension of class opening or academic freeze this school year** "Education must continue". With the current health crisis of the country, alternatives are being explored to ensure that Filipino learners are not left behind as other countries have already opened their classes. **And so, we asked again "How are the learners?"**

Furthermore, the Secretary emphasizes the health and safety of learners and teachers as the utmost consideration of the department. Each learner is endowed with cognitive,

emotional, psychosocial, and physical abilities. Hence, it is important to recognize all these areas.

This study focused more on the psychosocial and emotional aspects of the learner. As schools all over the country adapt distance learning modalities, students are faced with difficulties learning at home, social disengagements, and various forms of personal and social anxieties. The need for emotional and psychological support among learners is now relevant more than ever. The unexpected change in the learning environment can trigger stress and fears among learners that can leave mental scars.

In this regard, a coping mechanism for learner's well-being must be crafted to address their present condition. Gusa Regional Science School – X, in the new normal education system, as a premier delivering institution of science and research curriculum in the region, commits to continually deliver the mandate of the Department of Education for access and quality education which is anchored on the department's mantra "Sulong Edukalidad".

Hence, this study will focus on a technique that will help the students continually manage well their learning performance without putting at stake their well-being. Specifically, it is aimed that learners who are currently facing tons of concerns will learn to develop present awareness instead of being overwhelmed. It is where mind-wandering to mindfulness technique will be introduced. The strategy for mindfulness is a strategy in helping the learners cope up in this time of crisis.

Mindfulness is generally described as paying attention to the present moment. It is done by doing various techniques such as meditation and breathing. By doing this, the person becomes more aware of his current thoughts and feelings. The goal is not to be overwhelmed by these but instead, be able to manage them. The opposite state is mind-wondering. It is a state where a learner focuses on many concerns and as a result, could not manage himself doing things he should have done.

In the context of this research, helping the learner cope with pandemics while learning encompasses the emotional and psychosocial aspects. The strategy for Mind-wandering to Mindfulness uses communication, compassion, and consistency in the class through the guidance of the teacher even in distance learning.

2 Methodology

The Senior High School students are considered participants in this research. The participants are purposely chosen since they are doing research under modular distance learning. It is understood that research subjects should be taken with close monitoring and coaching, however, this has become limited due to distance learning.

The strategies: communication, compassion, and consistency were practiced for coping Mind-wandering to Mindfulness. For communication, the only means of communication

is through online messaging. This is a scheduled communication which is in form of reminder, motivation, and feedbacking. It is done early in the morning every day for one month. Compassion is employed through listening and adjustment. Students are given Weekly Home Learning Plan (WHLP), this plan contains the lesson and assessments in the module. The WHLP is crafted by the teacher and adjusted based on the phasing of the students. For one month, consistent communication and compassion through messages and WHLP are done. It is aimed that through this strategy, students are guided despite the barrier in the learning modality.

In gathering the data, an online survey and FGD were done. The tool was crafted and simplified based on the observed situation and experiences of students. Given the various tasks, a very short tool is found ideal and non-threatening for students. It is designed to measure the effectiveness of the strategy. The data gathered are both qualitative and quantitative. Narrative statements of students were themed and discussed. Quantitative data summarized using mean and standard deviation.

3 Results and Discussion

The following table shows the mean and standard deviation distribution of the constructs. Three areas were measured: teacher-student communication, compassion, and consistency.

Table 1. Distribution of Mean and Standard Deviation among Variables

Constructs	Mean	Standard Deviation	Verbal Description
Communicating with my subject teacher helps me focus on doing my modular tasks.	4.147	0.817	Agree
Knowing that my subject teacher listens and understands my difficulties helps me endure in doing my tasks.	4.253	0.871	Strongly Agree
Consistent follow-up of my subject teacher reminds me of what I need to do.	4.240	0.690	Strongly Agree

Range: 1.00-1.80 = Strong Disagree, 1.81-2.60 = Disagree, 2.61-3.4= neither agree nor disagree 3.41-4.20 = Agree, 4.21-5.00 = Strongly Agree

The interpretation of the results is being explained by theme as it is supported by results of online discussion. Significant findings have been found out – the concept of teacher-student communication for instance was redefined. The role of compassion in this time of distance learning is emphasized. And consistency has a vital function in learning as well

1.2 On Teacher's Communication towards the Students

Among the three constructs, teacher communication with students has a 4.147 mean score where students agree that communicating with their subject teachers helps them.

Surprisingly, communication was not perceived as very helpful by students in doing their tasks. Communication was supposed to be a motivational tool for students to finish their tasks (Asrar, Tariq, & Rashid, 2018). However, the result of the current study seems to appear contradictory.

Looking in the context and scope of this current study, communication is limited only to text messaging, FB messenger, and googleclassroom. This type of communication is far way different from typical teacher-learner communication inside the classroom. Limited online communication is also prone to miscommunication.

Hence, it explains the result of this study. As described by the students, their communication with the teacher is helpful but limited, formal, time-bounded, and not quick. Though they understand the limitation of the communication, it cannot be denied that their accomplishment of tasks is affected.

However, it was generally described as good and accommodating though it is brief and concise. As a student described it, "Despite the busy schedule of our teacher, she still gives time to answer our queries. I can say our communication with our subject teacher is good and efficient." "I felt comfortable communicating with my subject teacher. When I ask clarifications or questions, my teacher answers sooner than I expected. Also, my teacher openly accepts any questions and I believe this helps me understand the subject and tasks accordingly."

1.3 On Teacher's Compassion towards Student's Difficulties

If there is a time in teaching-learning where compassion is highly sought perhaps this time. This current study explored how teachers' compassion motivates the learners to endure the difficulty in adjustment due to modular learning. It can be gleaned from Table 1 that students strongly agree ($M=4.253$, $SD=0.871$) that it is a motivating factor to endure when their teacher listens and understand their difficulties.

A teacher who fosters compassion sees the struggles and suffering of students as individuals. This attitude helps the teacher as well to see even the difficult student (Hough, 2018).

This is evident in the shared feelings of students, generally, they find that their teacher understands them. In this modular distance learning, they perceived compassion by lessening their tasks and being considerate of submissions.

As some students shared, "Picking one or two activities only." "She listens and considers valid reasons." "Yes. She gives us words of encouragement to help us get through the difficulties and comfort us in ways she can." These statements confirm that compassion is way more beneficial currently not only academically but more for their mental health.

Another notable result is the development of compassion of students towards their teachers as well. They shared their understanding of the side of the teacher who cannot

immediately attend to their needs. Hence, along the way compassion is a two-way attitude that makes the students finished their tasks.

1.4 On Teacher's Consistency of Follow-up and Guidance

The third construct explored in this study is the teacher's consistency in giving guidance since students are taking research subjects. Results show that the mean score is 4.240. This denotes that students strongly agree that their teacher's follow-up reminds them of what they need to do.

Students thrive in an organized and well-managed classroom (Wong, H. & Wong, R., 2020). But how will this be when students are at home and can be easily distracted? With social media or easy access to gadgets, how can they concentrate? Hence, in this study, teacher employs consistent follow-up and guidance through their digital classrooms and FB messenger.

It was found to be helpful to students. As most of them have shared, "Posts from the google classroom are consistently posted to follow-up and guide us in learning." "Our teacher reminds us weekly and is always gives us clear instructions as early as possible" "She made sure to remind us all the time of the important tasks that we may not forget them." Furthermore, Weekly Home Learning Plan serves as a guide to students. "Yes, there are WLPs every week that help us remember our tasks." This notable result implies that despite the modular distance learning various tools and platforms can be utilized to bridge the gap in the difficulty of communication among teacher and learner.

4 Conclusion and Recommendations

The implication of the results of this study, suggests that both teachers and students had a difficulty in Modular Distance Learning. However, compassion understanding can foster adjustments in the delivery of learning. Consistency in follow-up and guidance is also very important for students to accomplish their tasks.

Notably, the current learning delivery redefines communication. Hence, the teacher should continually adapt and learn means to effectively and efficiently communicate to students.

The coping mechanisms are found to be effective in helping the students overcome mind-wandering, enhancement of teacher-students communication means can be further explored. Other factors that cause or relate to students' perceived difficulty can be investigated. Lastly, other variables that help students cope in their difficulty is recommended for future study.

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Exploring Perceptions Towards Academic Honesty In The New Normal: A Basis For The Adoption Of Academic Integrity Policy In Modular Distance Learning

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Abstract. This research explores students' perceptions towards academic honesty. It provided the answers and analyses to the question as to how do students' view academic honesty in Modular Distant Learning. It employed a qualitative data collection method through structured interviews and focus groups among 30 students in one public SHS in Cagayan de Oro City. All collected data were transcribed, analyzed, and interpreted. The study revealed that although the new learning modality has its own merits, most of the student-respondents were dissatisfied with MDL due to the limited guidance of the teachers. To address this difficulty, students resorted to some academic misconduct like (1) plagiarism; (2) soliciting answers from their classmates; and (3) collusion or the unauthorised collaboration by two or more students in the production and submission of tasks. These are the students' survival strategies of these times. In the new normal, academic honesty is perceived as non-existent. Corollary to this, it surfaced in the FGD that the students preferred to be assisted in the MDL through the following interventions: limited face-to-face sessions, flexibility with deadlines, and structured synchronous online sessions. Given this intervention, the researcher recommends that schools formulate their own academic integrity policy in MDL.

Keywords: academic honesty, academic integrity, modular learning delivery

I. Introduction

The advent of COVID-19 in the last quarter of 2019 precipitated the so-called "new normal." The absence of traditional "face-to-face" learning and the emergence of distance learning as a new learning delivery modality have raised concerns about academic honesty. Cheating, for example, has been considered a serious problem in the academe. Chiesl (2009, as cited in McGee, 2013) has underscored that common reasons as to why students cheat include fear of failure, desire for better grades, pressure from parents to do well etc. In the face of limited interaction, it may be difficult if not

impossible for teachers to determine or appraise student performance in remote learning.

Academic integrity is regarded as cornerstone of the learning process (Bretag et al., 2014; Harp & Taietz, 1966, as cited in Parnter, 2016). According to Merriam-Webster dictionary, Integrity is described as the "quality of being honest and having strong moral principles; moral uprightness" (Webster, n.d.). It is a fundamental component of a student's moral character. But the prevalence of all forms of academic misconduct makes its implementation a critical challenge among schools. The International Center for Academic Integrity (2012) considers honesty as an indispensable foundation of teaching, learning, research, and service, and a necessary prerequisite for the full realization of trust, fairness, respect, and responsibility. Irrespective of the learning delivery modality, students are expected to avoid any type of academic dishonesty. The seriousness of academic dishonesty is supported by Wangaard and Stephens (2011) who asserted that cheating, in general, violates core values of trust and fairness.

To ensure assessment and feedback continuity, DepEd issued D.O. 031, 2020, or the Interim Guidelines for Assessment and Grading in Light of the Basic Education Learning Continuity Plan, to provide guidance on the assessment of student learning and on the grading scheme to be used. It instructed teachers to be reasonably lenient and considerate towards the learners during these times. Despite the said leniency, the Policy Statement of the aforementioned mandate is clear about its stand towards integrity. It stresses that teachers, school leaders, and parents must commit to uphold the integrity of learning and instruction in the context of distance education.

The purpose of this study was to determine how students perceive academic honesty in the new learning modality. The study examined the challenges and difficulties encountered by the students in remote learning. Also, the study presented the students' most preferred intervention or assistance from the school and their teachers. This research undertaking will explore ways to (1) assist and support students' performance in Modular Distance Learning; and to (2) advocate academic integrity policy in MDL.

2. Strategy/Intervention

Expecting academic honesty from the students is unrealistic if they are not being guided and supported by their teachers. The school intervention program included (1) limited physical/face-to-face session; (2) extended deadlines; (3) structured synchronous online session; (4) unstructured guidance via call or through social media; and (5) home visitation. After the assistance given, the academic integrity policy was conceptualized. Orientations were conducted to explain to the students what constitutes cheating in modular distance learning (MDL). It is in this manner that an awareness towards academic dishonesty in distance learning is raised. In a particular study, it is observed that institutions that promote and enforce honor codes have lower rates of academic dishonesty (Gibson, Blackwell, Greenwood, Mobley, & Blackwell, 2006, as cited in McGee, 2013).

3. Research Questions

This study sought to find answers to the following questions:

1. What are students' general perceptions towards academic honesty in modular distance learning?
2. How is academic misconduct committed in the new normal?
3. How can the school and the teachers assist the learners in the modular distance learning?

4. Scope and Limitations

This study was conducted in one public senior high school (SHS) in the Division of Cagayan de Oro City for the school year 2020-2021. The student-respondents are from Grade 11 and Grade 12 levels.

The foci of this study were (a) the students' general perceptions towards academic honesty in modular distance learning (MDL) among the SHS students, the basis of this will be the policy statement of DO No. 31, s. 2020, or the Interim Guidelines for Assessment and Grading in Light of the Basic Education Learning Continuity Plan; and (b) the students' most preferred interventions and assistance for modular distance learning (MDL).

Although this study revealed the student's most preferred interventions from their teachers in MDL, there is no intervention results incorporated in this research undertaking. As a perception study, it primarily aimed at analyzing the perceptions of students about academic honesty in the new normal. It attempted to explain the various challenges and difficulties as regards the impact of MDL on the students.

Another important consideration noted by the researcher is the prevalence of many forms of academic dishonesty in the new normal. These include but not limited to (1) plagiarism or copying content without citation; (2) soliciting answers from their classmates through various social media platforms; and (3) collusion and complicity which happens when more than one student contributes to a piece of work that is submitted as the work of an individual.

5. Research Methods

5.1. Research Design

The study examined the perceptions of academic dishonesty in modular distance learning (MDL). The study used a qualitative design using structured interviews and focus groups to explore students' perceptions towards academic honesty and types of academic dishonesty occurring in modular distance learning (MDL). All interviews were audio-taped, transcribed, analyzed, and interpreted.

5.2. Sampling Procedure

The sample group is consisted of 30 SHS students. Among these participants, 19 identified themselves as males and 11 females. This study employed purposive sampling in identifying the participants.

5.3. Data Analysis

All collected data were transcribed, analyzed, and interpreted. A large amount of verbal data through interviews and focus groups was analyzed through a qualitative content analysis. According to Schreier (2012, as cited in Kääriäinen, M., Elo, S., Kanste, O., Pölkki, T., Utraiainen, K., & Kyngäs, H., 2014), qualitative content analysis is a method for systematically describing the meaning of qualitative data

All the responses gathered through focus groups and structured interviews were extracted and explained accordingly. Consequently, these responses were coded and categorized as emerging themes of this research work. For better understanding, the results were divided and presented under the following themes:

Theme 1: Importance of Academic Honesty

Theme 2: Challenges and Difficulties Encountered in MDL

Theme 3: Academic Misconduct as a Survival Strategy

Theme 4: Interventions Preferred by the Students

Frequency and percentages were used to tally on the following: (1) student-respondents' demographic profiling; and (2) in their responses in the structured interviews and focus groups.

6. Results and Discussion

6.1. Profile of the Respondents

Table 1 provides the data on the categories of the student-respondents interviewed according to sex, age, and year level. Based on these factors, this study was participated predominantly by Grade 12 male students with ages between 16-18.

Table 1. Profile of the students of respondents (n=30).

		F	%
Sex	Male	19	63.33
	Female	11	36.66
Age	16-18	23	76.66
	19-Above	7	23.33
Grade Level	Grade 11	13	43.33
	Grade 12	17	56.66

6.2 Thematic Responses of the Respondents

Guided by motive questions laid during structured interviews and focus groups, the responses of the SHS students were tallied accordingly.

Theme 1: Importance of Academic Honesty

Table 2 shows the responses of the SHS students when asked about their general views towards the essence of academic honesty in one's studies. It can be gleaned that the top reasons include foundation of success and an essential component of independent learning garnering both 33.33 percent.

Honesty viewed as a foundation of success is associated with Aristotle (2004, as cited in Molina & Wells, 2017). In his concept of ethics, a virtuous person is someone who has ideal character traits e.g. honesty and are essential to living a life of excellence.

Table 2. SHS students' responses on the importance of academic honesty (n=30).

Motive Question: In general, why is academic honesty important to one's scholastic work?		
Responses	f	%
(1) It is a foundation of one's success.	10	33.33
(2) It is a moral obligation.	7	23.33
(3) It is an essential component of self-trust and self-confidence.	3	10.00
(4) It is necessary for independent learning.	10	33.33

When asked whether academic honesty is still being practiced in the “new normal,” majority of the respondents negatively perceived it. Only 4 out of 30 or 13.33 percent believes that students can still remain honest in MDL. This is understandable considering that it is common for students to misbehave in the absence of a teacher, and this is especially true for distance learning. Table 2.1 summarizes these responses.

These perceptions that cheating occurs more often in distance learning has been studied by King, Guyette, & Piotrowski (2009, as cited in Peterson, 2019), in which they found that 73.8% of students surveyed felt that it was easier to cheat in distance learning Table 2.1 summarizes these responses.

Table 2.1. SHS students' perceptions towards academic honesty in MDL (n=30).

Motive Question: Do you think academic honesty is still observed in the new normal?		
Responses	f	%
(1) Yes, I believe that academic honesty is still practised today.	4	13.33
(2) No, academic honesty is non-existent in this new learning modality.	26	86.66

Theme 2: Challenges and Difficulties Encountered in MDL

Table 3 reveals the students biggest struggles in MDL. The data points out that understanding and analyzing concepts is their greatest difficulty. We can surmise that this 73.33 percent is the direct result of little to no direct teacher guidance and supervision. The same observation was also supported by Atchley et al (2013, as cited in Paul &. Jefferson, 2019) claiming that distance learning can lack feedback for both students and instructors.

Table 3. SHS students' challenges and difficulties encountered in MDL (n=30).

Motive Question: Could you identify some pressing concerns you encountered in MDL?		
Responses	f	%
(1) Difficulty understanding and analyzing concepts without the support of the teacher.	22	73.33
(2) Overreliance on Google or online data for answers.	18	60.00
(3) Financial constraints, especially that logging on the Internet everyday requires certain costs.	8	26.66
(4) External and internal distractions, like family issues and peer pressure.	7	23.33

Theme 3: Academic Misconduct as a Survival Strategy

As survival strategies, many students resort to various forms of academic dishonesty or misconduct. Table 4 ranked the top three (3) forms of academic dishonesty in MDL namely, complicity or collusion, soliciting answers, and plagiarism. Collusion is committed when inappropriate or unauthorised collaboration by two or more students in the production and submission of tasks. Soliciting answers means to use any form of communication to obtain answers from various sources. And plagiarism is simply a copy and paste of online content act without citation.

Among these, collusion appears to be the most frequent choice of students for both online and classroom cheating according to Stuber-McEwen, Wisely & Hoggatt (2009, as cited in McGee, 2013). In distance learning modality, this can take place by exchanging information through the use of a more sophisticated technology.

Table 4. SHS students' academic misconducts committed in MDL (n=30).

Motive Question: As a survival strategy, what forms of academic misconduct have you committed in MDL?		
Responses	f	%
(1) Getting someone else to do answer my modules.	15	50.00
(2) Copying online content without citing sources	18	60.00
(3) Soliciting answers from various sources such as classmates and friends	12	40.00

Theme 4: Interventions Preferred by the Students

When asked about their most preferred intervention or assistance, the data shows in Table 5 that half of the respondents, 50.00 percent, opted limited face-to-face and home visitation as the least preferred with 3.33 percent.

The face-to-face instruction has numerous benefits not found in distance learning according to Xu and Jaggars (2016, as cited by Paul & Jefferson, 2019). Traditional learning is extremely dynamic and allows for immediate teacher response and more flexible content delivery.

Table 5. SHS students' preferred interventions or assistance from teachers (n=30).

Motive Question: What is your most preferred assistance/support from your teachers?		
Responses	f	%
(1) Home visitation.	1	3.33
(2) Unstructured guidance via calls or through social media at least once a week.	2	6.66
(3) Structured synchronous sessions, like online meetings.	3	10.00
(4) Flexibility with deadlines, like in submission of modules and performance tasks.	13	43.33
(5) Limited face-to-face sessions.	15	50.00

Despite this overwhelming preference for limited face-face, the school remained adherent of DepEd Order 012, series 2020, or otherwise known as Adoption of the Basic Education Learning Continuity Plan for School Year 2020-2021 in Light of the Covid-19 Public Health Emergency. This is an uncompromising instruction that there shall be no face-to-face instruction until students are safe. Instead, the school opted other forms of assistance such as flexibility with deadlines, like in submission of modules and performance tasks, unstructured guidance via calls or through social media at least once a week and home visitation.

7. Conclusion

The advent of COVID-19 has brought unprecedented changes to education. The rapid shift to distance learning created opportunities for academic misconduct. This study has concluded that modular distance learning has negatively impacted SHS learners as manifested by their perceptions towards academic honesty in the new normal with an overwhelming response among the respondents that academic honesty is no longer observed in the "new normal".

This perception corroborated the various forms of academic misconduct committed by the student-respondents themselves. On a brighter note, students are willing to be helped through various interventions or assistance from the school and their teachers. As highlighted in the results, their preferences include limited (1) face-to-face sessions; (2) flexibility with deadlines; and (3) structured synchronous online sessions.

8. Recommendations

It is given that maintaining academic integrity is equally a challenge in both traditional and distance learning. But the Code of Ethics for Professional Teachers reminds us that it is expected of every teacher to possess not only professional competence but high moral values as well. Considering this mandate, teachers are expected to foster the culture of integrity among the learners.

The researcher recommends decreasing academic dishonesty in modular distance learning by raising awareness of the importance of being honest to our scholastic works through an academic integrity policy. This supports the policy statement of DO No. 31, s. 2020, or the Interim Guidelines for Assessment and Grading in Light of the Basic Education Learning Continuity Plan, where teachers, school leaders, and parents must commit to uphold the integrity of learning and instruction in the context of distance education. This academic integrity policy is composed of three components namely, (1) Anti-Plagiarism, where students will be taught to properly cite sources; (2) Honor Pledge, a signed document where they certify that the submitted work is entirely their own; and (3) Ethics-in-Action Self Quiz, a quarterly self-reflection on whether their action violate any ethical values such as integrity, respect, fairness, or kindness.

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Filling Up New Dimension in Education through Mental Improvement of Clienteles (FUNDEMIC): A Shaped Education for a Shaped Well-being in the New Normal

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Abstract. Distance learning is one of the biggest changes the schools had to make this new normal. Given the distance learning that is taking place in the current school year, students are opted to study at home which poses a threat by adapting to the new set-up and learning without the physical assistance of teachers. In light of this observation, the researchers implemented Filling Up New Dimension in Education through Mental Improvement of Clienteles (FUNDEMIC): A Shaped Education for a Shaped Well-being in the New Normal, utilizing Teach for the Philippine's Batang Bayani Program materials to Grade 7 students of Cagayan de Oro National High School. The objective of this study was to enhance students' self-awareness, a key factor for growth mindset in the new normal. Non-probability sampling was used for participant selection. Simple statistical method was utilized in gathering the results. The study yielded positive results by an increased percentage from pre-test to post-test. Learning circles and webinars with the Guidance Counselor provided safe space for students to express and know their identity. Hence, it was concluded that FUNDEMIC helped improve self-awareness of Grade 7 students, ensuring growth mindset amidst educational challenges. Application of such program is therefore recommended.

Keywords: New normal, distance learning, self-awareness, child protection, Philippines

1 Introduction

The COVID-19 has undoubtedly posed a massive global threat in different respects. Alongside the socio-economic disparities that it has caused is the educational downturn that schools worldwide are experiencing in the present time. To combat this challenge on educational pursuit, the Department of Education issued through DepEd Order No. 012, s. 2020 the adoption of Basic Education Learning Continuity Plan (BE-LCP) that emphasized learning as essential and thus, must not be jeopardized in the light of a public health emergency.

While the BE-LCP re-structured completely our educational setup to what is now called the "new normal", the unexpected changes in the educational system budged not only the approaches to a total shift but more so the teachers, parents and the students as key players in the academic hiatus. The new dimension in education placed

Clienteles especially the students in a higher level of responsibility as schools opted for distance learning. It is stressed out in the study of Rauschenberg, et.al (2020) that social isolation due to home confinement, for example, has been associated to students' anxiety. Particularly, in Cagayan de Oro National High School, parents posited concern on their child's disposition in education. From a number of consultations conducted by class advisers through SMS, phone calls, online chats and the like, parents commented on the notable struggles of their children especially in their outlook towards education.

Considering the relevance of the above conditions, the researchers conducted a study that is anchored on the general provisions of the Department of Education's Child Protection Policy Section 8 under D.O. 12 s 2012 that seeks to enhance, protects, preserves and maintains physical and mental health of students, in order to succeed in the new dimension in education. As the current circumstances could not be controlled but could only be faced if grounded on positive mindset, the idea of a shaped education resulting to a shaped well-being had driven the researchers of Cagayan de Oro National High School to come up with a research titled "Filling Up New Dimension in Education through Mental Improvement of Clienteles (FUNDEMIC): A Shaped Education for a Shaped Well-being in the New Normal".FUNDEMIC targeted self-awareness, an important component to develop resiliency (Cohn, et.al, 2009) in the new normal among Grade 7 students who have the most difficult transition towards junior high school. Its aim is that while learning sessions constantly check on students with "Kumusta Ka?", students would also be able to check on themselves with the question "Kumusta Ako?" in order to introspect on the inner self and translate it in the outside. As students are the most important stakeholders of the school, it is believed that a series of sessions on self-awareness would create positive results, from knowing the concepts of such essential term to learning how to apply it in real life regardless of what the educational situation may present.

2 Methodology

The methods that were utilized in the study are qualitative and quantitative. The necessity of these methods is to analyze the data, answer the questions raised and get the numerical description during the pre-assessment and post-assessment and get the comparative results. This study also used non-probability sampling, particularly convenience sampling, for the selection of participants. This method is considered appropriate in the study as the researchers considered students who had access to internet connections and had available laptops and smartphones, and therefore only Grade 7 STE, SPA and SPGT students of Cagayan de Oro National High School were considered in the study. In analyzing the data, frequency was used to determine the increase of the scores from the tests given.

Specifically, the study utilized the Batang Bayani Workshop Modules from Teach for the Philippines. The Batang Bayani Workshop (BBW) aims to provide students with life skills that will assist them in transitioning to new and diverse learning environments. The workshops aimed at assisting students in finding their inner hero, or "Bayani," who can sustain positive relationships both within and outside their home through "Bayanihan," and eventually

develop into good citizens of the country, or "bayan." Through the varied and fun activities in the module and during the synchronous sessions, students were expected to recognize one's strengths, weaknesses, and helps, and assess how can be helpful during difficult situations, show gratitude for one's capabilities, and gain trust in one's talents and skills. The pre- and post-assessments used in this study were essential as it was expressed by Salkind (2010) that to measure the "value-added" in the study, the aforementioned tests should be conducted. The assessment was the basis for the present status of learners and the determining factor if the strategies and activities were effective in addressing the problem as stated in the purpose of the study. On another note, a learning circle was utilized to get useful opinions and insights on how students perceive their situation in terms of status and performance before the implementation of the strategy. Hence, the researchers conducted a Learning Circle with the participants. In analyzing the results, the researchers employed a simple statistical method to determine the increase of scores from the given tests.

In order to ensure confidentiality of the data collected and the personal background, a letter of consent was sent to guardians of the respondents. As students, hence children, in the context of the study, the researchers ensure that all information derived from the study is given the utmost confidentiality. As stipulated in The Research Exception under the Data Privacy Act 2012 | Data Privacy Philippines (2018), sufficient safeguards should be followed, and no further action should directly affect the data of the participants. The rights of the participants were taken into account without compromising both the integrity of the research and the results.

3 Results and Discussion

This study looked into the positive results of FUNDEMIC towards learners in the new normal. Specifically, the study aimed to enhance self-awareness as an important component on mental health among select 30 Grade 7 students through online sessions, with the use of Leading Self: Batang Bayani Module and integration of varied and fun activities that students may use to express themselves, shaping their well-being while facing the challenges of the present education setup. The bearing of results for this study are presented by answering the corresponding questions:

1. What is the status of self-awareness among respondents before the FUNDEMIC was implemented?

Table 1. Distribution of Respondents' Self-Awareness in terms of Knowledge before the Implementation of FUNDEMIC

Range of Scores	Number of Students	Percentage	Description
8-10	13	43	Very Good
5-7	8	27	Good

0-4	9	30	Poor
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Table 1 shows the distribution of respondents' self-awareness before the FUNDEMIC was implemented. It is shown in the results that in terms of students' knowledge on self-awareness, 30% garnered 0 to 4 points or Poor rating which can then be denoted that the latter has little to no assimilated understanding on knowing oneself. This may indicate that out of 30 students, 9 have the chance to wrongly identify their strengths and weakness and/or have difficulty accepting their identity.

According to Morin (2011), a person with self-awareness actively identifies, processes and stores information about himself. If students have low self-awareness, then, in contrast, it is presumed that they may have a hard time evaluating their actions and thus, may affect their undertakings in the new normal. On the other hand, 8 or 27% of the respondents received a Good rating while 13 or 43% received a Very Good rating in the pre-test. This means that before the study was implemented, the students already have an understanding on self-awareness and its importance to oneself. Margining on almost thirds of the total number of participants, it can be deduced that most of the students are aware of their identity, emotions, actions, strengths and weaknesses.

Table 2. Distribution of Respondents' Self-Awareness in terms of Practices

before the Implementation of FUNDEMIC

Statement	Descriptions and Percentages							
	Hindi	%	Minsan	%	Madalas	%	Parati	%
1	3	10	4	13	13	43	10	33
2	4	13	3	10	3	10	20	67
3	4	13	7	23	10	33	9	30
4	1	3	6	20	9	30	14	46
5	3	10	3	10	9	30	9	30

Table 2 further shows the self-awareness of students in terms of their practices. The statements were given on the basis of how they might correspond to particularly given situations. In the table, the results explicitly show that a notable number of students exhibit consistent application of self-awareness as high percentages for all statements fall under Madalas (43%, 10%, 33%, 30%) and Parati (33%, 67%, 30%, 46%, 30%). Though this numerical

data significantly indicates that students may have right judgment for an action on a particular situation, it should still be considered that the other cut that falls under Hindi and Minsan still needs supervisory attention and needs immediate action from teachers.
 2. What is the status of self-awareness among respondents after the FUNDEMIC was implemented?

Table 3. Distribution of Respondents' Self-Awareness in Terms of Knowledge after the Implementation of FUNDEMIC

Range of Scores	Number of Students	Percentage	Description
8-10	16	53	Very Good
5-7	12	40	Good
0-4	2	7	Poor

After the FUNDEMIC was implemented, a positive result was evident in the post test. Table 3 presents the distribution of respondents' self-awareness in terms of their practices. Compared to the results of the pretest, the results after the implementation show that students have already grasped understanding on self-awareness. 16 or 53% received Very Good rating while 12 or 40% received Good rating which means that students are able to identify themselves and effectively check their inner self in order to manage emotions. Since they have undergone series of online sessions with constant check-up and processing from the teachers, they have learned the important concepts and ways to effectively assess themselves. In the midst of pandemic, self-awareness is very essential for students so they could control their responses despite the uncontrollable conditions in the environment.

With the result at hand, it is believed that these students can have positive mindset towards their education and towards life, in general. It is also shown in the table that out from 30 respondents, only 2 or 7% of the students received Poor rating, thus, significantly decreases number of students that have low self-awareness. This poses a challenge that teachers, especially class advisers, should take extra mile in reaching out to students and conduct programs such as the FUNDEMIC in order to promote good mental health that is grounded from self-awareness, so to say.

Table 4. Distribution of Respondents' Self-Awareness in Terms of Practices after the Implementation of FUNDEMIC

Statement	Descriptions and Percentages							
	Hindi	%	Minsan	%	Madalas	%	Parati	%

1	1	3	6	20	8	26	15	50
2	0	0	4	13	6	20	20	67
3	0	0	6	20	11	36	13	43
4	1	3	4	13	6	20	19	63
5	1	3	6	20	9	30	14	46

In addition, Table 4 strengthens the claim of the researchers that FUNDEMIC helps improve students' self-awareness by showing their personal responses to situations that are realistically happening nowadays. From the previous result for pre-test with 15 students who responded Hindi, the number of respondents who chose this answer moved down to 3. This signifies that students practiced what they have learned in the given period of the implementation, making them fully aware of their own self and use proper emotions in given circumstances. This also means that their strengths are improved while their weaknesses are being corrected in order to face challenges with resiliency.

Moreover, respondents have shown high indication of self-awareness through their answers for Madalas (26%, 20%, 36%, 20%, 30%) and Parati (50%, 67%, 43%, 63%, 46%), subsequently. During the first online sessions, some of them were still hesitant and shared negative responses or emotions when asked. But as the implementation was about to end, they have opened up themselves to their fellow participants and showed their talents on self-worth to the class in one of the performance activities. This means that when students are provided with this kind of program, and self-awareness is injected in class activities, the more they can build confidence and know their self-identity.

3. How did the use of Leading Self: Batang Bayani Module as a tool improve the self-awareness of Grade 7 students in the new normal?

The use of Leading Self: Batang Bayani Module was found helpful in improving the self-awareness of Grade 7 students in the new normal due to its relevance and significance in knowing one's capability to thrive amidst challenges. The activities in this module were specifically aligned with the competencies of leading the self by targeting self-awareness, per se. It is composed of two parts: Ako ay Isang Batang Bayani and Kayang-kayang Ko.

Ako ay Isang Batang Bayani encompasses the 4K's of a young leader: Kakayahan, Kahinaan, Katuwang and Kalinga sa Sarili. These four aspects believe that for a learner to develop self-awareness, they must be able to know their strengths, weakness, networks and develop self-care. They were tackled during the sessions and were further supplemented with fun activities such as illustrations and graphic organizers of their own

superhero logo with their 4K's presented. Aside from this, the online session where a guidance counselor was invited as a resource speaker made the module's goal to be realistically achieved because the topic was deepened by an expert of the field and in

turn was eagerly accepted by the students. Raising questions, giving comments, and sharing of each other's experiences from the new normal during the session was integral because students were able to realize that they are not solely the persons who experience struggles in education, and people like their teachers are willing enough to listen and help them surpass the strokes of life.

From knowing its concepts, the second part, *Kayang-Kaya Ko*, recognizes that simple discussion is not enough. This part of the module is presented in a way that self-awareness must be applied and thus is believed to empower students by manifesting positive emotions and becoming confident in one's ability and talents. One of which highlighted here is engaging class participation through a performance about self-worth. Though conducted virtually, students had a deeper understanding on their worth as a person and a reflective appreciation on the distance learning as not a hindrance for their self-expression. Such engagement allowed positive emotions among the students which strengthens the idea that when pride, joy and hope are manifested by a person, academic interest and effort and overall achievement can happen (Pekrun, et.al, 2004).

4 Conclusions and Recommendations

Overall, the FUNDEMIC helped in the improvement of self-awareness of Grade 7 students because it focused on the self through the insightful lessons and engaging activities that uplifted students in the new normal.

According to Cohn, et.al (2009), self-awareness is one of the five domains of practice to develop resilience, along with mindfulness, purpose and perspective, self-care and self-management, and relationship management, all of which facing the new normal highly needs. Self-awareness as stated by Cohn includes the following aspects together with their corresponding application to the FUNDEMIC sessions: (1) insight, elaborated in the sessions by having students reflect on their inner self; (2) authenticity, improved in the sessions by having students reveal their weaknesses and strengths; and (3) emotional intelligence, expressed by having students express their true emotions during the online and offline activities.

Hence, to continuously preserve the mental health of students as emphasized in the Child Protection Policy, the following recommendations should be noted. First, a program that similarly targets mental improvement of parents should be conducted as they are the para-teachers who assist their child in the new normal. Second, an innovative 'kamustahan' center as a safe space for learners must be done by teachers in order to strengthen the purpose of the study. Third, other aspects on mental health such as problem solving should be incorporated in further researches to address further problems among learners. Fourth, for FUNDEMIC to be more operative, a less number of participants is suggested to closely monitor and maximize process time for sharing and discussion. Lastly, as the study is deemed essential for all learners, the learning sessions

should be conducted by every class adviser because they are the immediate supervisors to their classes, and thus, requires them to safeguard their learners' well-being.

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Daring to teach in the tough days of the COVID 19 Pandemic

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Abstract. COVID-19 has dramatically and distinctively changed education. E-learning is the new buzzword and is replacing traditional educational methods. Most countries are still struggling and experimenting with exceedingly overhyped online teaching curriculums. The 'new normal' that is much talked about is not really new because leaders putting education online are still thinking in terms of classrooms. Today's digital classes are essentially made up of a reading assignment, lecture videos, homework problems and quizzes. I believe it is, in actuality, the method of education we were trying to transform. In this paper I try to answer the question "How can I improve my practice as a teacher by developing expertise in online teaching?" Action research provides an alternative approach to bringing about changes in knowledge and practice. This paper concerns the way a Higher Education teacher used her imagination, took a risk, and developed an add-on program called 'ART to teach life skills education' for post-graduate social work students and taught it online. ART is the acronym for Action, Reflection, and Transformation.

Keywords: online teaching, life skills education, COVID-19 Pandemic

Introduction

"The... educator must be awake, critical, open to the world. It is an honor and a responsibility to be a teacher in such dark times—and to imagine, and to act on what we imagine, what we believe ought to at last be." (Greene, 2005, p. 80)

There is a sense of desperation. First the announcement of 21 day lockdown and then the 15-day extension as the death toll from COVID-19 rose in India and abroad. Unprecedented drastic measures to try to halt the spread of the virus. Fear is also mounting that more could be hit as the global coronavirus tolls escalate. Schools and colleges shut down with no exception. Reflective journal April 7 2020 Schools and colleges continue to remain closed but online and distant classes continue. Reflective journal August 20 2020, To me an educator who teaches life skills education using drama this was alarming, as I believed in experiential learning, dialogical and negotiated classrooms. For years I have been in opposition to 'the anti-dialogical banking education' (Freire, 2000, p.74) prevalent in India. Thus, it was a rude shock for me to learn I would not be able to teach in the way I usually do, using drama-in-education. I would have to maintain physical distancing in my classroom. How does teacher teach life skills using drama with physical distancing? The 'new normal' in education was making me lose my emotional control due to extreme shock, fear, and, despair. The Oxford University Press (2020)

defines new normal as 'a previously unfamiliar or atypical situation that has become standard, usual, or expected'.

Before the pandemic we used the term '21st Century knowledge and skill'; skills such as critical thinking, communication, collaboration and creativity were being nurtured. In the 'new normal' the terms used are lockdowns, quarantines, physical distancing, online learning and IT. Technology that is ubiquitous, omnipresent.

A couple of challenges that come with so called the ubiquitous technology are: Firstly, it is not really ubiquitous or present, or found everywhere. Only 'Only 27 percent of Indian households have access to the Internet while only 47 percent of the households have any access to the Internet own a computing device (including a Smartphone)' (EducationWorld, 202, Para 1). This discrepancy creates a huge gap in learning and leads to unequal education.

Secondly, online learning has some critical shortcomings such as the lack of human connect; it makes collaborative learning difficult, and the one that affected me the most was lack of opportunities for experiential learning.

My educational values are based on equality, equity, dialogue, collaboration and love. These values involve negotiated, dialectical experiential and self-directed learning. With the new normal I could see my values being negated in my practice. I could see my life's work falling apart.

In this predicament I posed a few questions to myself; this paper tries to answer those question:

- How can I improve my practice as a teacher by developing expertise in online teaching?
- How can I carry out an online lesson and yet ensure it is learner-centred?
- How can I demonstrate a nexus between art and learning in a Master of Social Work classroom?

This paper is about why I asked these questions and how I tried to answer them. It is the explanation and description of an educational enquiry as I asked:

- How do I improve what I am doing?
- How do I improve my practice?
- How do I improve the process of education here?

A Journey with Action Research

Action research is a methodology that works for me because by definition action research is:

a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes, It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities. (Reason & Bradbury, 2001, p. 1)

Action research was appropriate for me as the framework supports practitioners in a quest for find ways they can find answers to problems they find in their practice. I was in search of an answer to problems (Ary, Jacobs & Sorensen, 2010) arising from:

- an aspiration to improve my life skills education curriculum;
- a desire to amend my instructional strategies from using drama in education to using effective online strategies;
- an intention to advance my own professional development by being an efficient teacher; by enabling a democratic and negotiated classroom in spite of it being online;

I created a table (Table 1) to better understand McNiff's (2002) view of action research by putting down my perceptions next to hers.

Table 1. McNiff (2002) view of action research and my interpretation

McNiff (2002, p. 7)	My understanding of McNiff's (2002, p. 7) views
review our current practice,	Observe
identify an aspect we want to improve	Reflect
imagine a way forward,	Plan
try it out	Act
take stock of what happens	Observe
modify our plan in the light of what we have found, and continue with the 'action'	Reflect Plan Act
monitor what we do	Observe
evaluate the modified action	Reflect
continue] until we are satisfied with that aspect of our work	Plan Act

I followed the 'reflect, plan, act, observe, reflect,' cycle of action research.

- Reflect. I experience a problem in the present days. Due to the Pandemic as classes are all inevitably online. My problem is that I work in drama-in-education and that necessitates offline classes. Additionally, I am critical of what Freire (2000) termed 'anti-dialogical banking education'. The theory and practice of banking education (Freire, 2000) employ

'[v]erbalistic lessons', and maintains a 'distance between the teacher and the taught' (p.76). In 'banking education' [t]he students are not called upon to know, but to memorize the contents narrated by the teacher.'(p.80). The students do not use their cognitive abilities as cognition is the domain of the teacher.

I believe online classes are teacher-driven. Education online is still thinking in terms of classrooms. Today's digital classes are essentially made up of reading assignments, lecture videos, homework problems, and quizzes. I believe it is, in actuality, the method of education I was trying to transform.

- Plan. These conditions are directly connected to the pedagogical issues that arise in learning through distance and via electronic media. My aim was to reduce 'the transactional distance' (Moore, 1993), the cognitive space between teachers and learners in an educational setting that may produce a pedagogical, psychological, or communicational gap (Elyakim and Reyhav, 2015). Shortening the distance is best achieved through dialogue, the structure of instructional programs, and encouraging the autonomy of the learner.
- Act. Worked with forty students pursuing their Masters in Social Work degree and taught life skills online through Google Meet and used the Google Classroom to interact with them. I created a lesson plan that was attention-grabbing. The students were engaged through a conversation-like power-point presentation. Less 'listening' and more 'doing' content was used; activities like discussions, drama, arts, and crafts took up a huge part of the class. The physical separation that leads to a psychological and communication gap (Moore, 1993) was minimized through a teaching-learning process by the use of constant change in the class communication. Sometimes I asked the students to answer questions verbally, sometimes I asked them to answer in chat, and sometimes to note down the questions and write their answers after the class hours via Google Classroom. Videod the class. (Data)
- Observe. The data indicated that when I used too many slides there was a drop in attention. The online drama games which I planned worked very well. (data analysis).
- Reflect. Watched the first week's videos tried to understand the problems of online teaching.
- Plan. Decided to introduce cinema-in-education. Also resolved to use more activities to explain the theories.
- Act. Collected film clips and videos to use for the online classes. Created shorter PowerPoints. Created more online games. (collected data).
- Observe. I analyzed the students' online responses by watching the new videos. Observed my teaching and the student's pattern of behavior to determine whether the level of communication has improved. Reflected on what my learning. Made some new plans and take new actions for the next semester.

Revisiting my class

'... art could teach us how to restore order over chaos'(Maxcy, 2000, p. 4); I created a life skills education curriculum centered on this idea. Art, for me, stood for A-Action, R-Reflection and T-Transformation. Art in education encourages thoughtful reflection,

which is necessary for transformation. If I was to follow the 'new normal' I believe I should look at new media or new tools of art. The new media are radio, television, films, and computers, and so on.

Using film clips allowed me to rise above the traditional and orthodox methods of teaching. At a time when using technology for imparting knowledge is compulsory using the contemporary concept of utilizing movies as a tool for providing education is advantageous. The transactional distance between the teacher and student is wide. The younger students find textbooks difficult, combining learning with a source of entertainment seems like the ideal way of getting the most out of them. The film clips I used caught my students' attention and helped to keep them interested in the class. To prevent them from getting easily distracted I kept changing the methods used for teaching.

For me it was creative yet hard work whilst improving my ICT skills I also improved my skills of editing clips. I did that so I could show the exact moment for what I wanted to teach them and not waste their time by showing long-drawn scenes.

Table 2. in the Appendix is a Lesson plan I used to teach effective listening skills; a part of my effective communication module

Lessons learned and concluding remarks

In this paper, I reflect on what I have learned so far with the view that when a teacher shares the experience of her practice she is supporting a 'knowledge-creating culture' (Scardamalia & Bereiter, 2006). This involves not only cultivating knowledge---building skills but seeing themselves and their practice as part of an effort to advance knowledge for the benefit of others.

Firstly, my students' learning improved; I could enhance their 21st-century skills while sustaining the new normal.

Through watching the recording of my classroom I could improve my practice. Not only could I improve my lesson plans but importantly I could improve my teaching or delivery style.

I learnt and have elucidated that my classes were not lecture classroom online but were active learning classrooms online. I have demonstrated that an online class should have a well-planned sequence of activities for 'active engagement' that allows the learners an opportunity to interact with the teacher and each other and have hands-on, experiential learning. I believe I through my work I am making a contribution to my practice by demonstrating that ART can fill the gap created by physical distancing norms due to the COVID-19 outbreak.

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Appendix

lesson plan I created to teach effective listening skills

	Teaching approach	Activities / films / games
1	<p>Ask the question: Why is listening important?</p> <p>Listening is the secret of being great at communication skills</p>	
2	<p>Studies suggest on average we spend 70-80% of our waking hours in some form of communication.</p> <p>Of that time, we spend about 9 % writing, 16 % reading, 30 % speaking, & 45 % listening.</p>	<p>Play Listening game:</p> <p>I played instrumental versions of songs and asked my students to guess the song.</p>
3	<p>Most of us are not very good at listening; research suggests that we remember less than 50% of what we hear in a conversation.</p> <p>The intention is very important in listening.</p> <p>Listening is not the same as hearing!</p> <p>Listening requires more than that: it requires focus and concentrated effort, both mental and sometimes physical as well</p> <p>The most basic and powerful way to connect to another person is to listen. Just listen. Perhaps the most important thing we ever give each other is our attention</p>	<ul style="list-style-type: none"> • Played a game: I read a couple of pages from an interesting storybook Of my 40 students: • 10 were asked to play on the cell phone and messages • 10 had to count how many times I said words like he/she/ their/ his/ her / and • 10 had write down whatever I said verbatim.

	<p>Reflections: Only the ones who were listening with attention enjoyed the story, as they could see my expressions and listen without distractions.</p>	<ul style="list-style-type: none"> • 10 had to listen without doing anything, and enjoy my story.
4	<p>Let's practice Listening :</p>	<p>First, let's listen to the silence.</p> <p>We should actually spend a few minutes every day sitting in silence.</p>
5	<p>Writing an Acrostic Poem with LISTEN</p> <p>My example:</p> <p>Laughing with friends chatting and listening,</p> <p>In our happy classroom we connect with one another;</p> <p>Sitting in silence when each other speaks,</p> <p>Talking when it's the time to reflect,</p> <p>Engaging in active listening,</p> <p>Nurturing friendships when we listen with interest.</p>	
6	<p>Watching film clips:</p> <p>Bad listening skills</p>	<p>Scene from The Devil wears Prada: When Meryl Streep interviews Anne Hathaway but flips through the</p>

		magazine all through and ignores Anne completely.
7	Bad Listening skills	Scene from Roman Holiday: When Audrey Hepburn listens to her secretary with irritation and speaks over her, repeating everything she says.
8	Good listening skills	Drama Series: Mad Men Where is Jon Hamms is listening to Vincent Kartheiser.
9	Empathetic Listening	Scene from: Inside Out 2015
<p>This is not trivial, because listening is our access to understanding. This is a serious problem that we are losing our listening.</p> <p>This is not inconsequential, because listening is our access to understanding. Conscious listening always creates understanding, and only without conscious listening can these things happen. A world where we do not listen to each other at all is a very scary place indeed.</p>		

Teachers' Mental Health during a Pandemic

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Abstract. The global outbreak of COVID-19 continues to pose unprecedented challenges to every sector of the government. To the Department of Education, this meant continuous cancellation of face-to-face classes while school incessantly find ways to carry on the students' learning. Aside from that, the DepEd should ensure the health, safety, and well-being of all learners, teachers, and personnel of the Department while engaging into various learning delivery modalities such as distance learning and blended learning, among others. This research focused on assessing the mental health of the Puerto Princesa City National Science High School teachers during the COVID-19 pandemic using Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) questionnaire. Tentative positive diagnoses of mental conditions were seen among the teachers. These disorders include generalized anxiety disorder, panic disorder, bipolar disorder, major depressive disorder, post-traumatic disorder, manic episodes, and substance use disorder. Furthermore, these results suggest the need for a proper health care through a mental health professional.

Keywords: COVID-19 pandemic, teachers, mental health, symptoms, assessment

1 Introduction

It was a 360° change of view when the World Health Organization (WHO) China was informed of cases of pneumonia of unknown cause in Wuhan City, China, and when this so-called COVID-19 reached the different countries including the Philippines in 2020. Humanity was put into a situation where they question what will tomorrow be with the deadly virus.

People not used to travel restrictions are prompted to follow and everyone's freedom to gatherings and similar activities were suppressed as observing health protocols such as

social distancing will slow down the spread of the corona virus. Aside from that, frequent handwashing, wearing face masks and face shields become part of the new normal everyday routine.

Nevertheless, this virus did not only compromise and take the lives of many people but to some extent, robbed the people's peace of mind and somehow, affected everyone's mental wellness. Living everyday with an invisible threat gives people a sense of uncertainty and negativity which eventually affect their mental well-being.

In an article of CNN Philippines, Dr. Violeta Bautista, a clinical psychology professor, said that the collective stress and anxiety are normal reactions to an abnormal situation and that the battle against COVID-19 is a highly unusual circumstance with the capacity to challenge and destabilize anyone. According to her, having pre-existing mental health problems may make one more vulnerable to the stress (Coronel, 2020).

As of today, vaccines are already available but the percentage of people who have been vaccinated has not yet reached the so-called herd immunity. Unfortunately, Department of Health (DOH) Undersecretary, Maria Rosario Vergeire, on an online press briefing scooped by Inquirer.net, disclosed that the Philippines aims to achieve herd immunity against Covid-19 by 2023 (Gonzales, 2021).

On the other hand, the global outbreak of COVID-19 continues to pose unprecedented challenges to every sector of the government. To the Department of Education, this meant continuous cancellation of face-to-face classes while school incessantly find ways to carry on the students' learning. Aside from that, the DepEd should ensure the health, safety, and well-being of all learners, teachers, and personnel of the Department while engaging into various learning delivery modalities such as distance learning and blended learning, among others.

Recognizing the impacts of the COVID-19 pandemic to a person's mental health, the DepEd launched a series of Mental and Psychosocial Support Services (MHPSS) provisions for DepEd personnel. The DepEd comprehends that working from home, lack of physical contact with other family members, friends, and colleagues, and the home-based learning of children have impacts to a person's mental and psychosocial well-being. MHPSS reminded everyone the importance of taking care of oneself and acknowledging that sometimes, "It's okay not to be okay." (Department of Education, 2020).

In the light of the above-mentioned circumstances, the researchers desire to explore the teachers' mental health during this pandemic time. The results of this study may give awareness to the teachers about their current mental condition and in due course, will give the DepEd some baseline information to enhance their mental health programs.

1.2. Related Studies

In times of fear and uncertainty, when threats to one's own survival and that of others become one of the main issues of daily life, many believe that mental health care can wait and that efforts should focus on preserving life. However, mental health is precisely one of the keys to surviving this latest pandemic and all that it entails in the short, medium, and long term, from the potential crisis in the provision of health services to helping preserve and reconstruct a post pandemic society. (da Silva, et.al., 2020)

In a study among university professors in Israel on the shift of teaching during the COVID-19 pandemic, the results revealed higher levels of psychological stress during the transition to online synchronous teaching compared with previous periods of teaching. (Besser, et. al., 2020)

Teachers experienced considerable stress as a result of the COVID-19 pandemic, which was related to poorer mental health, coping, and teaching. At the same time, teachers reported resiliencies, which were related to better coping and teaching. Supporting teachers' well-being is critical to prevent significant adverse consequences for teachers, their students, and the education system as a whole. (Baker, et.al., 2021)

1.3. Research Questions:

This research aims to assess the Puerto Princesa City National Science High School teachers' mental health during this pandemic time. Specifically, it aims to answer the following questions:

1. What are the teachers' mental health conditions this pandemic time based on DSM-5 questionnaire?
2. What are the symptoms detected among the teachers per mental health condition based on DSM-5?

1.4. Scope and Limitation

This research is focused on assessing the mental health of Puerto Princesa City National Science High School teachers as of May 2021. In the questionnaire, only the following conditions are assessed: substance use disorder, major depressive disorder, manic episodes, bipolar disorder, post-traumatic stress disorder, generalized anxiety disorder, panic disorder and panic attacks.

1.5 Methodology

1.5.1 Instrumentation

Survey was employed using a questionnaire that is based on Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), which is the standard text used by mental health professionals.

1.5.2. Population and Sample

This research utilized the 30 teachers of Puerto Princesa City National Science High School.

1.5.3. Data Collection Activities

The researchers secured letter of permission from the School Principal of Puerto Princesa City National Science High School and from the City Schools Division Superintendent through the Senior Education Program Specialist on Planning and Research. Upon approval of the letters, the researcher started collecting data through the questionnaire via Google Forms. Responses were analyzed and interpreted using the DSM-5.

1.6 Ethical Issues

The researchers submitted request letters to the School Principal and Schools Division Superintendent to allow the gathering of data from teacher-respondents. Responses, as well as the identities of the teachers during the conduct of the study, were taken with the highest possible degree of confidentiality.

1.7 Data Analysis

This study is a blended qualitative and quantitative research. The researcher employed basic statistical treatment of data such as frequency, percentage, and mean.

2 Results and Discussion

This research entitled “Teachers’ Mental Health During a Pandemic” presents the results arranged in order as stated in the research questions.

Problem1 . What are the teachers’ mental health condition this pandemic time based on DSM-5 questionnaire?

Table 1 presents the mental health condition of the teachers based on DSM-5 questionnaire.

Table 1. Mental health condition of the teachers

Mental Disorder	*Positive		Symptomatic		Negative	
	Frequenc y	%	Frequenc y	%	Frequenc y	%
Teachers (n=30)						
Substance Use Disorder	1	3%	1	3%	28	93 %

Major Depressive Disorder	6	20%	7	23%	17	57 %
Manic Episodes	2	7%	7	23%	21	70%
Bipolar Disorder	7	23%	2	7%	21	70%
Post- Traumatic Stress Disorder	5	17%	13	43%	12	40%
Generalized Anxiety Disorder	21	70%	5	17%	4	13%
Panic Disorder	9	30%	3	10%	18	60%

*tentative positive diagnosis

The table above shows the mental health condition of teachers based on DSM-5 questionnaire. The data reveals that 21 or 70% of the teachers are experiencing generalized anxiety disorder (GAD), 9 or 30% experience panic attacks, 7 or 23% experience bipolar disorder, 6 or 20% suffer from major depressive disorder, 5 or 17% endure post-traumatic stress disorder, 2 or 7% display manic episodes and 1 or 3% is having substance use disorder.

On the other hand, 13 or 43% of the teacher-respondents are symptomatic of post-traumatic disorder while 7 or 23% are symptomatic of major depressive disorder and another 7 or 23% exhibit symptoms of manic episodes. Five respondents or 17% have symptoms of generalized anxiety disorder while 3 among the respondents display symptoms of panic attacks. Two (7%) respondents reveal symptoms of bipolar disorder while 1 of them shows symptoms of substance use disorder. Further results show that a teacher may experience up to 4 mental disorders and/or still manifest symptoms (symptomatic) of up to 3 other mental disorders. Yet, it is important to note that the questionnaire used served as a self-assessment tool only to evaluate likely diagnoses and/or sub-clinical disorders. The results are tentative diagnoses and need to be verified by a mental health professional.

Nevertheless, these results validate the significance and value of DepEd's efforts in launching a series of Mental Health and Psychosocial Support Services (MHPSS) provisions for DepEd personnel in July 2020. These also implies that the teacher's mental health should not be taken lightly just as the World Health Organization recognizes the importance of looking after one's mental and physical health amidst this pandemic. (WHO, 2021)

Problem 2. What are the symptoms detected among the teachers per mental health condition?

The following table (Table 2) discloses the symptoms of generalized anxiety disorder in percent.

Table 2. Symptoms of generalized anxiety disorder in percent.

GAD Symptoms	Percent Respondents
Worried or anxious about a number of things in life for at least 6 months.	100%
Difficulty to keep worry under control.	95%
Felt tense, restless, or on edge.	95%
Easily exhausted.	95%
Experienced sleep disturbances, and had difficulty falling or staying asleep.	100%
Difficulty remembering things or concentrating.	50%
Irritable or became easily angered.	23%

The table above displays that all of the 22 teachers who have tentative positive general anxiety disorder experience worries or anxiety for 6 months and longer, endure sleep disturbances, and had difficulty falling or staying asleep. 21 (95%) of the teachers also experience difficulty to keep worry under control, felt tense, restless, or on edge, and easily exhausted. 11 (50%) out of those 22 tentative positive respondents struggle on remembering things or concentrating while 5 (23%) of 22 teachers admitted they are irritable and easily angered.

The table (Table 3) below presents the symptoms of panic disorder seen among the 9 tentative positive respondents.

Table 3. Symptoms of panic disorder in percent.

Panic disorder	Percent Respondents
Worried about having a panic attack and/or purposely avoid situation in which this might occur	78%
Having heart palpitations, a racing pulse, or a pounding pulse	89%
Sweating profusely	78%
Trembling or felt tingly/numb	44%
Having difficulty breathing or felt like choking	67%
Chest pain	56%
Experienced abdominal distress	78%
Experienced chills or hot flashes	33%
Experienced dizziness or lightheadedness	0
Fearful of losing control, going crazy, or dying	56%

The data revealed that 8 of 9 (89%) tentative positive respondents in panic disorder had heart palpitations, a racing pulse, or a pounding pulse. 7 out of 9 (78%) are worried about having a panic attack and/or purposely avoid situation in which this might occur, experienced sweating profusely, and endured abdominal distress. 6 out of 9 (67%) had difficulty breathing or felt like choking. Other symptoms noticed include chest pain (5 of 9), trembling or felt tingly/dumb (4 of 9), and chills or hot flashes (3 of 9).

The next table (Table 4) shows the symptoms detected among the respondents with tentative positive diagnosis of bipolar disorder.

Table 4. Symptoms of bipolar disorder in percent.

Bipolar disorder	Percent Respondents
Extreme and explicable mood swings from depression to elation	100%
Frequently depressed, sad, empty, or hopeless	85%
Less or no longer interested in activities enjoyed in the past	100%
Lost/gained significant amount of weight, or appetite increased or decreased	57%
Restless and agitated, or slowed down	100%
Regularly tired or low in energy	85%
Feelings of worthlessness or extreme guilt	100
Recurrent thoughts about death and suicide	42
Depressive symptoms resulted in distress and affected day-to-day functioning	100%
Unusual elevated, energetic, or irritable mood	100%
Abrupt increase in self-esteem, or a sense of grandiosity or superiority	85%
Sleeping less yet still felt rested and able to function	85%
Suddenly flooded with thoughts and ideas, and/or were talking more/faster	100%
Increasingly goal-oriented, taking on more activities than normally would and/or became easily distracted	85%
Excessively involved in fun activities that could have had negative consequences	85%
Mood disturbance became severe enough to result in significance distress, impaired functioning, and/or hospitalization.	100%

From among 30 respondents, 7 were diagnosed with tentative positive bipolar disorder. The table above discloses the symptoms manifested by the 7 teachers.

The following table (Table 5) shows the symptoms of major depressive disorder.

Table 5. Symptoms of major depressive disorder in percent.

Major Depressive Disorder	Percent Respondents
Frequently depressed, sad, empty, or hopeless	100%
No longer interested in activities that are enjoyed in the past	83%
Lost/gained significant amount of weight, or appetite increased or decreased	50%
Restless and agitated, or slowed down	100%
Regularly tired or low in energy	83%
Feelings of worthlessness or extreme guilt	100%
Recurrent thoughts about death and suicide	50%
Depressive symptoms resulted in distress and affected day-to-day functioning	100%
Difficulty concentrating or making decisions	83%

Out of 30 respondents, 6 of them resulted to have major depressive disorder with the symptoms shown in the table. Other mental disorders present in the respondents include post-traumatic disorder, manic disorder, substance abuse disorder. Results are suggestive that teachers' need medical attention particularly with their mental health conditions.

3 Summary of Findings, Conclusions, and Recommendations

Based on the results, the teacher-respondents experience tentative positive mental disorders while still carrying symptoms of other mental conditions. In this light, the researchers recommend the following:

1. Teachers who have tentative positive mental disorders are advised to consult with a mental health professional.
2. The DepEd may undergo a division-wide mental health assessment in order to evaluate the mental health of a greater number of teachers and foster early detection and prompt treatment.
3. The DepEd may strengthen its mental health programs through prevention, promotion, and education such as the information education campaign and guidance and counseling activities.

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GiAGaK Mi as Tea Elixir to Boost Teachers' Immunity Amid the Pandemic

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Abstract. The sudden shift of teaching modality and covid-19 pandemic has stressed out teachers today. Naturally, when one is under stress, the body's immune system helps the body to de-stress. This study aimed to discover the latent power of tea elixir in boosting teachers' immunity. Ginger, "Ahos" or Garlic, Kalamansi and Mint (GiAGaK Mi) were the key ingredients of tea, proportionately weighed, brewed and served to select teachers of Mambuaya National High School for five weeks. The study used a qualitative method of research and descriptive statistics to validate the impact of the intervention. Immunity was measured using a researcher made questionnaire on Perceived Level of Immunity and modified Body Perception Questionnaire (BPQ). After the 5-week implementation phase, teachers perceived a well boosted (mean=3.75) immunity and confirmed that they were now aware (mean=3.69) of their body needs. In-depth interview results reveal three major themes; stay alert the whole day, obtain good bowel movement and feel light and happy. This shows that the intervention was effective hence, a viable solution to boost teachers' immunity, the healthy way. The researchers recommend tea consumption to teachers for it was proven safe, natural and an immunity boosting elixir.

Keywords : GiAGaK Mi, elixir, immunity

1 Introduction

The Magna Carta for Public School Teachers otherwise known as Republic Act No. 4670, was envisioned to provide programs for the promotion and improvement of the well-being and economic status of public-school teachers. Likewise, the Department of Education (DepED) has launched the Basic Education Learning Continuity Plan in the time of covid -19 (BE-LCP) as an enclosure to DepEd Order No. 12, s. 2020. To "Protect the health, safety, and well-being of learners, teachers and personnel, and prevent the further transmission of covid -19" was one of the BE-LCP principles.

In Mambuaya National High School, teachers were so frantic about the possible ill effects of covid -19. The once festive community of social engineers were abruptly turned into a quiet, afraid but not disrupted school-community. Likewise, the coronavirus pandemic

has turned teachers' attention to the immune system, the body's defense force against disease-causing bacteria, viruses and other organisms that we touch, ingest and inhale every day. Thus, the school head had initiated a school-based teachers' wellness program with the hope of improving teachers' health and wellbeing because they are an indispensable facet in the school. Also, covid -19 could not beat a person with strong immunity and that people who have weak immune systems have higher chances of getting infected with the virus (Finnegan, 2020).

The school head, together with the expertise of TLE and Science teachers as well as the presence of a licensed chemical technician, employed an intervention titled "GiAGaK Mi as Tea Elixir to Boost Teachers' Immunity Amid the Pandemic". Ginger, Ahos or Garlic, Kalamansi and Mint (GiAGaK Mi) were utilized because of its antioxidant, antiviral, and anti-inflammatory characteristics (Babich, et al.,2020). GiAGaK Mi is a Visayan term which means "We are nurtured" and in the study, the acronym stands for Ginger, Ahos or Garlic, Kalamansi and Mint that have nurtured teachers' health and immunity this pandemic.

Ginger (*Zingiber officinale*) is a powerful anti-inflammatory herb that is used for joint problems, arthritis, fevers, headaches, toothaches, coughs, bronchitis and tendonitis. Certain chemical compounds in ginger help your body ward off germs, kill bacteria like E.coli and shigella, and respiratory syncytial virus, or RSV. Moreover, ginger contains antioxidant components like polyphenols, vitamin C, beta-carotene, flavonoids and tannins (Prakash, 2011). Garlic (*Allium sativum*) or ahos in Visayan term, controls blood pressure, enhances immunity, reduces LDL cholesterol, removes heavy metal toxins in the body, supports eye, liver and heart health (Jessmy, 2019). Kalamansi (*Citrus microcarpa*) extract has antimicrobial properties, anti-anxiety and anti-depressive effects (Lou, 2017). In addition, peppermint (*Mentha piperita*) has been proven to relax muscles in your digestive system, relieves headaches, migraines, clogged sinuses, freshens breath and improved energy. Its main constituents were menthol, menthone, menthyl acetate and terpenes. Terpenes boost emotional well-being and thus used in aromatherapy. Also, its scent has a calming, sedative effect. (Wu et.al, 2019).

In the study, the famous herbal tea was used as an infusion elixir. Elixir is a term that was used to convince the populace of its potential power to strengthen one's immunity because of the rich antioxidants it contained. Antioxidants nurture a healthy body and give you the boost of energy you need to get through your busy day. The intervention lasted for 5 weeks and the tea-drinking session was made twice a day, preferably in the morning upon arrival of the select participants and before going home. Though immunity is a complicated variable to measure, researchers have used some indicators of a strong immune system; body perception/awareness ability and teachers' perceived level of immunity to quantify the effect of the intervention. In-depth interview, modified and

researcher made questionnaires were the tools used to answer the research problems and to validate the efficacy of the intervention.

Thus, the main objective of this study is to boost the immune system or immunity of the select Mambuaya National High School Teachers specifically the commuters this

school year 2020-2021 . Specifically, the study sought to answer the following research questions: (1) How the intervention called "GiAGaK Mi" boosted teachers' perceived level of immunity; & (2) How does "GiAGaK Mi" as an intervention improved the teachers' body perception ability as a predictor of a strong immunity?

2 Methodology

The participants of this research study were the select teacher-commuters of Mambuaya National High School. Out of twenty-eight (28) teachers, eighteen (18) of which were identified as daily commuters, that means they were not residents of Barangay Mambuaya but to the neighboring Barangays and the city proper as well. Four teachers from the commuters' list were excluded from the pool of participants because they were the researchers of the study. This process was imposed to refrain from the possible biases that would take over specially that this paper would use both the qualitative and quantitative methods of research.

This study had used the purposive sampling, a non-probability sampling technique in which the researchers would be the one to choose the respondents of the study to save time and effort during the research implementation phase. Likewise, in-depth interviews, modified and researcher-made questionnaires were used to gather the pertinent data of the study. Researcher made questionnaire was used to determine how the intervention manifest changes in the way teachers' perceived immunity. The 20-item questionnaire was administered to select tryout respondents who are part of the population with similar characteristics to those of the final respondents, but they did not participate in the actual study.

Likewise, the instrument was subjected for reliability test using Cronbach's Alpha. Thus, the Likert Scale for interpreting the Cronbach's Alpha was used to test the internal consistency of the research instrument. The 10- item survey questionnaires for teachers' perceived immunity had a reliability index of ninety-three percent (93%) and based on Cronbach Alpha's consistency scale of $\alpha \geq 0.9$, the questionnaire is excellent. Similarly, the other 10-item body perception questionnaire had a reliability index of eighty-two percent (82%) and based on Cronbach Alpha's consistency scale of $\alpha \geq 0.8$, the questionnaire is good. Considering all of the items in a single factor, the consistency obtained was ninety-four percent (94%), thus, the instrument used was excellent.

Further, teachers' perceived level of immunity before and after the 5-week intervention was analyzed and compared using descriptive statistics. The mean was used to get an overall picture of the data set specifically on the level of perceived immunity. Using a 4-point Likert scale, perceived immunity level was categorized as; definitely not boosted (1.0-1.75) not boosted (1.76-2.50), boosted (2.51-3.25), and well boosted (3.26-4.0). Likewise, a modified questionnaire by Porges (2015) was used to determine improvements on the teachers' body perception ability. The Body Perception Questionnaire (BPQ) is a self-report measure of body awareness. Each item is based on the neural pathways connecting the brain and body. These pathways send information from the body about the status of organs and tissues and eventually form a basis for the subjective awareness of the body. These signals can alter the functions of the body, depending on internal and external needs. Respondents' responses were categorized and analyzed as; fully not aware (1.0-1.80), not aware (1.81-2.60), neither aware or not aware (2.61-3.40), aware (3.41-4.20), and fully aware (4.21-5.00).

The researchers believed that a well boosted immunity would enable one to be aware about his own body and because everything is manipulated by the human brain, then, a healthy brain activity will promote a strong immunity (Finnegan, 2020). Moreover, in-depth interview was employed to gather pertinent data specially on the efficacy of the GiAGaK Mi as tea elixir in boosting teachers' immunity. Participants' answer during the in-depth interview were tallied, recorded and subjected to thematic analysis to delve further on the usefulness of the intervention.

3 Research Findings

The collected data were sorted, tallied, and recorded out from the instruments used in the study. The findings were analyzed, interpreted, and presented sequentially by problem for thorough understanding of the data.

3.1 How the intervention called "GiAGaK Mi" boosted teachers' perceived immunity?

Table 1. Teachers' Perceived Level of Immunity Before and After the Intervention

Statements	Before			After		
	Mean	SD	Description	Mean	SD	Description
I have good bowel movement	2.5	0.527	Not boosted	3.8	0.422	Well Boosted
I feel that I am fit and active.						Well Boosted

	3.1	0.316	Boosted	3.8	0.422	
I suffer from acne, rashes and allergies.	2.7	0.483	Boosted	3.7	0.483	Well Boosted
I experience a strong sense of hunger.	2.6	0.516	Boosted	3.8	0.422	Well Boosted
I experience a deep sleep at night.	1.7	0.483	Definitely not boosted	3.7	0.483	Well Boosted
I feel ache in any part of your body.	2.2	0.421	Not boosted	3.6	0.516	Well Boosted
I feel happy.	2.8	0.422	Boosted	3.8	0.422	Well Boosted
I get a bumpy itch after a mosquito bite.	2.2	0.421	Not Boosted	3.8	0.422	Well Boosted
I easily get tired and lazy to get things done.	2.1	0.316	Not Boosted	3.8	0.422	Well Boosted
I easily get cold and fever.	2.6	0.516	Boosted	3.7	0.483	Well Boosted
Total	2.45	0.442	Not boosted	3.75	0.92	Well Boosted

Legend: 3.26-4.0 Well Boosted

2.51-3.25 Boosted

1.76-2.50 Not boosted

1.0-1.75 Definitely not boosted

Table 1 shows the effect of tea elixir on teachers' perceived level of immunity before and after the 5-week implementation phase. Results show that after the intervention, teachers perceived their immunity as well boosted (mean=3.75). The antioxidant, antiviral, antimicrobial and anti-inflammatory properties of the herbal tea

have significantly bent changes on the teachers' perceived level of immunity (Griffin, 2020).

3.2 How does “GiAGaK Mi” as an intervention improved the teachers' body perception ability as a predictor of a strong immunity?

Table 2. Teachers' Body Awareness Before and After the 5-week Implementation

Statements	Before			After		
	Mean	SD	Description	Mean	SD	Interpretation
Swallowing frequently	1.3	0.483	Fully not aware	3.1	0.738	Neither aware or not aware
My mouth being dry.	1.3	0.483	Fully not aware	3.6	0.516	Aware
How fast I am breathing	1.3	0.483	Fully not aware	3.4	0.516	Neither aware or not aware
Watering or tearing my eyes	1.3	0.483	Fully not aware	3.6	0.516	Aware
Noises associated with my digestion	1.3	0.483	Fully not aware	3.4	0.516	Neither aware or not aware
A swelling of my body or parts of my body	1.5	0.527	Fully not aware	3.6	0.516	Aware
An urge to defecate	3.8	0.422	Aware	4.7	0.483	Fully aware
A bloated feeling because of water retention.	1.3	0.483	Fully not aware	3.8	0.919	Aware
How hard my heart is beating			Fully not aware			

	1.5	0.527		3.7	0.483	Aware
Feeling constipated	1.4	0.516	Fully not aware	4.0	0.816	Aware
Total	1.6	0.489	Fully not aware	3.69	0.602	Aware

Legend: 4.21-5:00 Fully aware 3.41-4.20 Aware 2.61-3.40 Neither aware or Not aware

1.81-2.60 Not Aware

1.0-1.80 Fully not aware

It can be inferred from Table 2 the improvements on the teachers' body perception ability. Indeed, the intervention was found useful in improving the teachers' perception ability for them to address right away their bodily needs both the internal and external needs. Our body has inbuilt signals to tell us when were hungry, need to eat or when we are tired and need rest. Without body awareness, we often ignore these important signals from the body. Neglecting these signals could affect our physical and mental health. As our body awareness improves, we can better respond to our own needs and relate well to our environment (Cabrera et al., 2018).

Table 3. In-depth Interview Results

Major Themes
Stay alert the whole day
Obtain good bowel movement
Feel light and happy

To validate the efficacy of the intervention, in-depth interview was employed among select respondents. Their responses were tallied, recorded and subjected to thematic analysis to validate the efficacy of the intervention. Result reveals three major themes; stay alert the whole day, obtain good bowel movement and feel light and happy. Several studies could prove that these major themes were signs and indicators of a strong immunity (Harvard Health, 2014). GiAGaK Mi tea elixir was all natural and loaded with energy releasing compounds that other energy drinks don't have, which made that energy boost even better. The energy boosting component of the tea has made the participants alert all throughout the day.

Likewise, the tea elixir has the soothing effect of menthol in peppermint that may help to relax an upset stomach while moving stool through the intestines (Johnson, 2018).

Research has shown that being happy may help keep your immune system strong. In the study, participants acknowledged that consuming tea during the day had made them feel light and happy. Using the literature and relevant researches about herbal tea, it was found out that GiAGaK Mi tea elixir contains synephrine from Kalamansi that made the participants feel light and the terpenes in mint have boosted emotional well-being and thus, makes teachers happy every day.

4 Conclusion

As the research has demonstrated, the thorough preparation of GiAGaK Mi tea or simply tea created an elixir that expunges teachers' anxiety over covid 19. The intervention helped teachers consumed antioxidants, stay hydrated and boosted their perceived level of immunity. Since it was all natural and heartily prepared, the "tea-chers" were assured that the ingredients from the brewed ginger, *ahos* or garlic, *kalamansi* and mint have protected them from the dreaded virus. Hence, school-based wellness program like "Tea-chers Drinking Program" should be employed as a proactive measure to boost teachers' immunity amid the pandemic. Further, school leaders must encourage everyone in the school community to take part in this undertaking and consume GiAGaK Mi tea even in their respective homes instead of consuming expensive and synthetically prepared immunity-boosting products that were sold in the market. Considering the positive effect of the intervention, the researchers suggest utilization of GiAGaK Mi tea specifically to all teachers-commuters in the school and the district to boost immunity in an inexpensive and health way.

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WIN (sci-Worksheets Initiatives in the New Normal) for Learners at Risk in Modular Distance Learning

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Abstract. This study investigated the learners at risk in Modular Distance Learning Modality (MDLM). It was found out during the first quarter of the modular learning implementation that several learners were unable to completely study the Most Essential Learning Competencies (MELCs) in Science 6. To address the incomplete competencies gained by learner, this study implemented an intervention named WIN (sci-Worksheets Initiative in the New Normal) which aimed to help learners attain the required competencies. Thus, the participants of the study were the eight (8) Grade VI pupils purposely chosen for School Year 2020-2021. The study used the retrieved modules with answer sheets as source of data. Focus Groups were conducted through google meet and face to face to find out how the intervention helped the participants in attaining the Most Essential Learning Competencies (MELCs). Data collected from the retrieved modules were analyzed using descriptive statistics. Data gathered from Focus Groups were also themed, transcribed and analyzed. Findings revealed that Sci-WIN significantly helped the learners learned the essential competencies. Further, Sci-WIN garnered positive responses from parents. It made their children more empowered to study as it is easy and doable these pandemic times.

Keywords: sci-WIN, Worksheets, Competencies, Modular Learning

1. Introduction

Covid-19 pandemic has paved the way to the implementation of Modular Distance Learning as an urgent response to ensure continuity of education. The Philippines is in the process of adapting to the new normal form of education at present, and continuous innovations of educators and active involvement of other stakeholders are the driving force for its success.

Similarly, the educators, the learners, and the school are still coping and adjusting to the distance learning education. Modular distance learning approach is a learning delivery mode where interaction takes place between the teacher and the learners who are

geographically remote from each other during instruction. This means lessons will be delivered outside the traditional face-to-face set up.

Magsambol (2020) mentioned that aside from Self Learning Modules, work plans will also be distributed to learners. But unlike SLMs, this will be given to learners weekly as this indicates the schedule of lessons and activities the learners will have to do every week. Again, parents or anyone who will guide the learners at home will be the ones to get this from teachers. Despite the systematic schedules reflected in the weekly home learning plan, several Grade 6 learners have the difficulty in learning the competencies as revealed in the answer sheets from the retrieved modules. It was found out during the first month of the modular learning implementation; several learners did not answer or finish some of the Science modules/competencies. Because of the discovered incidents, teacher researchers conducted a face-to-face meeting with the parents of the concerned learners. Unluckily, the mismanagement of time by learners, the lack of parents' guidance and the numerous and lengthy modules affected the learners' ability in studying completely the most essential learning competencies. These concerns ignited the teacher researchers to apply an intervention which can address the unfinished or unstudied most essential learning competencies.

It is also on this context that WIN (sci-Worksheets Initiative in the New Normal) was conceptualized to address the risk in modular distance learning specifically the competencies that a learner should study in every quarter. The use of online platforms with parents' participation is the possible solution to lessen the incompliance of competencies. Sci-WIN is anchored on DepEd's move to innovate Philippine education as Secretary Briones called it Sulong EduKalidad. This program is in response to a "world drastically changing". Learners need to cope up with the COVID 19 crisis and not to discontinue their schooling. They are encouraged to pursue their education amidst the situation. Learners should pass the challenges they have encountered while learning at their own pace. Learners should continuously chase on their dreams and finish their elementary years.

2. Action Research Questions

This action research aims to answer the questions:

1. What is the status of the retrieved self-learning modules during the first quarter?
2. Is WIN (sci-Worksheets Initiative in the New Normal) effective on learners at risk in the modular distance learning delivery modality?

3. Action Research Methods

3.1 Participants

The eight (8) grade 6 learners of Bulua Central School were considered participants in this research. The participants were purposely chosen for this research-based project.

3.2 Data Gathering Methods

In gathering the data, triangulation was considered. The data gathered were both qualitative and quantitative. Focus Group Discussion of parents through google meet and face to face result was themed and discussed. Quantitative and qualitative data were summarized and analyzed using descriptive statistics.

4. Results and Discussion

This section presents the analysis and interpretation of the data. The presentation of the analysis follows the statement of the problem of this study. After the retrieved competencies/modules were accounted, Focus Group Discussion was also conducted, computed and analyzed; the table below shows the findings.

1. What is the status of the retrieved self-learning modules during the first quarter?

Figure 1. Data of the Retrieved Self-Learning Modules of the First Quarter

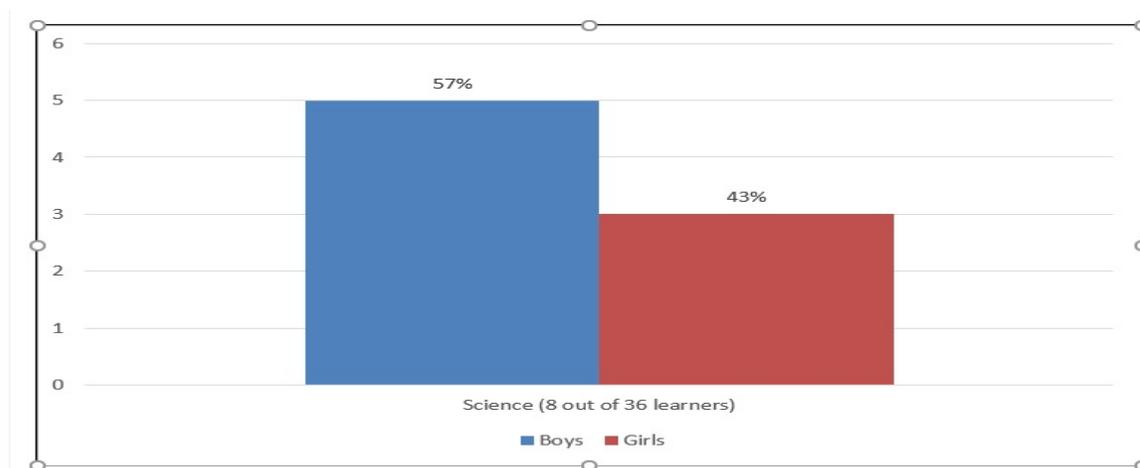


Figure 1 presents the number of pupils who incompletely studied the modules in Science based on the learners' retrieved modules as reflected in the distribution monitoring during the first quarter.

Visibly, there are also 8 (22%) learners who were not able to completely answer or study their modules or the two most essential learning competencies in Science in the first quarter. Those eight learners are composed of 5(62%) boys and 3 (38%) are girls. Thus, those eight learners failed to completely study or tackled the two most essential learning

competencies in Science in the first quarter. Unfortunately, weekly home learning plan with several activities to accomplish caused pressures to both learner and parent. The short time intended to answer with bulks of modules is the reason of the unfinished studied competencies. Hence, it was not accomplished because of mismanagement of time by the learners. Parents are busy with the other tasks and the academic support needed by learners was not provided.

Remarkably, the result of Dangle & Suamaong (2020) study attested that 90% of the students in modular distance learning had a hard time answering their modules. Half of them do not have enough time to accomplish all their modules within a week. They often receive at least 8 modules in all subjects and each module has 3-5 activities which caused the incompleteness of studied competencies. Llego (2020) also stipulated that distance learning modality is most viable for independent learners, and, modular distance learning basically, best suits the independent readers as well.

Similarly, Adorador, (2020) clearly emphasized that the pressure to work on the modules with a limited time frame for the sake of completion, in a Marxist sense, is called “alienation of labor. This reality should not be experienced by the young learners while pursuing their education amid pandemic.

2. Is WIN (sci-Worksheets Initiative in the New Normal) effective on learners at risk in modular distance learning delivery modality?

Figure 2. Data on the Effect of Sci-WIN Implementation

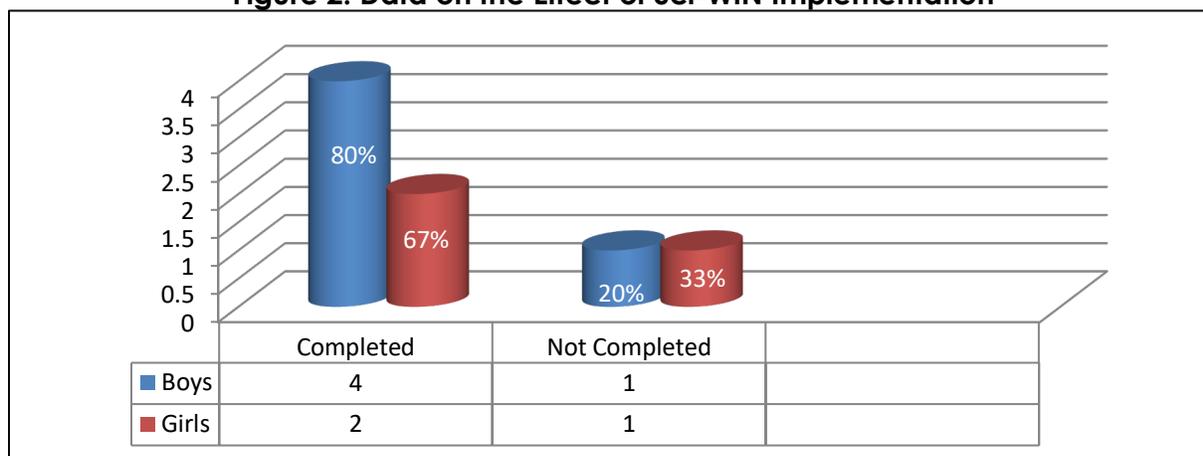


Figure 2 displays the percentage distribution of studied competencies in Science in the second quarter. The results reveal that out of 8 learners who were provided with the modules/worksheets, there are 4 (80%) male learners and 2(67%) female learners were able to completely studied, tackled, and answered the worksheets. This implies that WIN of Science subject significantly helped the learners in the needed competencies during

the second quarter. It also shows that the integrated worksheet is an effective tool to learn the competencies. It also indicates that parents' reminder and support assisted by digital communication affects the improved gained competencies. Hence, the lengthy competencies were combined successfully without putting pressures to a learner. Since it is simplified, localized, and short with clear stated concepts, learners can easily relate, comprehend, and answer guided by teacher's consistent supervision accompanied with digital platforms.

On the other hand, the remaining 2 learners with 1 (20%) male and 1 (33%) female were not able to completely stud and tackle the two most essential learning competencies in Science due to transfer of residence which later on cannot be located. Other factors such as, busy parents to earn a living so they can provide the essential needs of their child, academic discipline where study habit was not fully established, no stable internet connection and reading challenges, home environment and learners' interest and determination to accomplish the tasks affect the completion and conceptualization of competencies (Sammons, 2020).

Significantly, sci-WIN allows learners to learn at their own pace under guided MELCS and not providing pressures but joyfully enjoy the activities. Perhaps a silver lining has been the continued practice of sci-WIN. It is a potential remedy for the connection of a learner and a teacher through effective digital printed materials supported by online platforms. The growth of sci-WIN sessions shaped a "new normal" learning approach even learners are geographically remote from one another. Definitely, learning at home also requires parent participation and support to succeed and learn the competencies (Seale, 2020). Further, essential use of technology as supplementary tool for concept understanding and completion of the activities are vital (McNeely, 2020).

Sci-WIN is guided by Regional Memorandum 393 s. 2020 on the suggested instructional strategies in the implementation of modular distance learning wherein worksheets can be a supplementary tool and an effective assessment tool for the new normal learning. Sci-WIN follows the Most Essential Learning Competencies. Parents must serve as learning facilitators and must be available to support the learning process of the child at home as well as provide guidance in accomplishing the home weekly learning plan.

Figure 3. Result of Focus Group Discussion (FGD)

Major Themes	Frequency	Percentage
1. Status of SLMs	7	100%
2. WIN Intervention Efficacy	7	100%
3. Progress of WIN implementation	7	100%

4.Suggestion to Improve the Intervention	5	71%
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Status of SLMs. There are 7(100%) parents who responded truly in this theme. Parents confessed that they have noticed that their children were not able to answer some of the competencies. Also, they honestly mentioned that they lack support and guidance for their children while the latter was answering the modules. It is because working parents do not have the luxury of time to assist, support, and guide their children. They just let their children worked on their self-learning modules without follow-up if they have successfully finished the task or not. They thought of communicating with teacher but cannot realize it due to the demand of works. Parents also aired-out that their children could not understand the lessons in the self-learning modules which lead to arguments among the family members. For incompletely answered modules, children reasoned-out that they find the number of modules too many for them to finish.

Sci-WIN Intervention Efficacy. Project WIN garnered positive responses from 7 (100%) parents because it has a smaller number of tasks for the children to accomplish without compromising the learning of the child. The words were also more readable than the self-learning modules. Smaller number of tasks imposed less pressure on the child which leads to easy understanding and easy to work-on exercises. It made the child more focus on the task. It gave them more room for studying more modules.

Progress of sci-WIN Implementation. Project WIN received positive reviews from 100% of the parents. They all agreed that this has reduced the number of tasks which made their children more empowered to study the modules and answer the WIN. The parents attested that they have noticed a positive improvement of their children's study habit on modules. Parents acknowledged the help that Project WIN gave for them in making modular distance learning easy and doable during these pandemic times.

Suggestion to Improve the Intervention. There are 5 (71%) of the parents suggested that sci-WIN should progress, be continued, and be implemented in the other grade level and be appropriately implemented in all grade 6 levels. Consistent provision of constructive feedback from teachers, parents, and learners was highly recommended.

Conclusion

Based on the findings of the study, this conclusion was drawn.It was understood that the need on complete learning of the most essential competencies in Science subject through studying the self-learning modules were definitely addressed with the help of WIN (sci-Worksheets Initiative in the New Normal). The printed simplified and contextualized worksheets, online communications, and feedback giving, helped improve the learners' modular learning at home. Significantly, Sci-WIN is the silver lining of the dark clouds of confusions and struggles in this continuity plan of the Department of Education during

this new normal time. Sci-WIN's methodology is a high potential remedy for the loose connection between the learners and the teacher in this pandemic time. Finally, buddy learning through parent's dynamic participation and active technology integration contributed to the improved status of the retrieved self-learning modules.

Recommendations

In light of the findings and conclusion, it is recommended that the implementation of Project WIN (Worksheets Initiative in the New Normal) must be continued as it gave significant impact to the modular distance learning as part of the DepEd continuity plan. Thus, collaboration among parents, learners and other community volunteers in sustaining its implementation is the most vital on the learners' academic growth.

Moreover, these worksheets can be treated as learning resources and could be introduced during In-Service Training or Learning Action Cell (LAC) for teachers. Project WIN can also be a model for more interventions to solve problems such as but not limited to learners at risk for dropping out (LARDO), learners struggling with their geographical locations, and learners with no internet and technology access. Support for the present Project WIN intervention and other related learning activities must be one of the department's priorities.

Future researchers may consider the findings of the study as additional reference when they embark on their own study on modular distance learning modality among primary levels

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Scientific Calculator Familiarity of Use on Physics Achievement of Stem 12 Students

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Abstract

This study aims for student's familiarity with the scientific calculator as a tool in answering General Physics 1 problems of grade 12 STEM students in Ramon Avanceña High School. The research design utilized a quasi-experimental design. A total of 16 Grade 12 STEM students enrolled in General Physics 1 are chosen to be the respondents. In the synchronous class, they were first taught to compute in a traditional way. Then, the researcher reteaches the lessons with the use of a scientific calculator. A post-test will be conducted afterwards. Questionnaires will be given via Google forms in asynchronous sessions. The results are: student have to be familiarized with the basic uses of a scientific calculator as a tool for learning; students' mental state in answering physics problems such as being anxious in wrong answers, as well as the role of a teacher in teaching Physics; Lastly, results for the usage of the scientific calculator in solving physics problems improve and the students gained confidence and enthusiasm in answering General Physics 1 problems.

Keywords: Achievement, familiarity, general physics, scientific calculator, technology

1. Introduction

In Senior High School, the students will choose their strand in preparation for college. In their chosen strand, it demands specific abilities in different aspects whether in academics or skills. For the students in Science Technology Engineering and Mathematics strand, it needs a great deal on understanding the concepts and solving mathematical and scientific problems.

Based on a study conducted by Corpuz (2017) majority of the students finds the topics in Physics to be difficult. Its difficulty caused by their lack of background in Mathematics and having inadequate time in studying. For teaching and learning process, Eborá (2016) emphasizes that class participation is vital for teachers and students. Teachers could adjust the lessons, and, for a teacher, class participation could affect their performance.

In the advancement of technology, complex calculations become easier through the use of scientific calculator. Sadly, few students can afford at an early stage resulting to confusion about its usage. Chances are, when they reach Senior High School, teachers have to reteach the basics of usage of it. The other factor the teachers face when it comes to dealing with the students in is time management, their level of understanding in concepts and computations, and their anxiety because of misusing the scientific calculator.

2. Literature Review

A scientific calculator is designed to answer problems in Science and Mathematics. They are used in Science classes from junior high school through college specifically in Math, Chemistry and Physics. As a result, there are scientific calculators includes features to make it easier to answer following problems.

The study conducted by Lucas and Cayao (2009), reveals the students who are taught by using a scientific calculator in Statistics have significantly performed better with regards to the mean scores they obtained in their posttest compared to the students who are taught by the traditional way of calculating the lessons in statistics. And in terms of their anxiety level, they showed a significant difference since the experimental group learns statistics by using a scientific calculator their anxiety is reduced and regardless of the respondent's ability in Mathematics the student shows enthusiasm in learning the subject.

On the use of a scientific calculator as a tool for learning Boon (2009) observed that most of the respondents regardless of their abilities enjoyed and appreciated the lesson very when they are using a scientific calculator. It also shows the benefits of technology on students' achievement by using it. Other studies emphasize that it is easy to input numbers and to solve problems (Clark, 2011).

3. Research questions

The researcher wants to conduct action research on student's familiarity with the usage of the scientific calculator in Science instructions. It may also include lessons that are conducted online and modules that they could use in the lessons. In this study, the researcher focused on the STEM-12 familiarity with using scientific calculators for the student's academic achievement in General Physics. This research was carried out to answer the following questions:

1. To what extent student's familiarity with the scientific calculator as a tool for answering physics problems?

2. What are the issues affecting the students' performance in answering physics problems?
3. How the STEM 12 familiarity in scientific calculators could help to achieve their answering Physics problems?

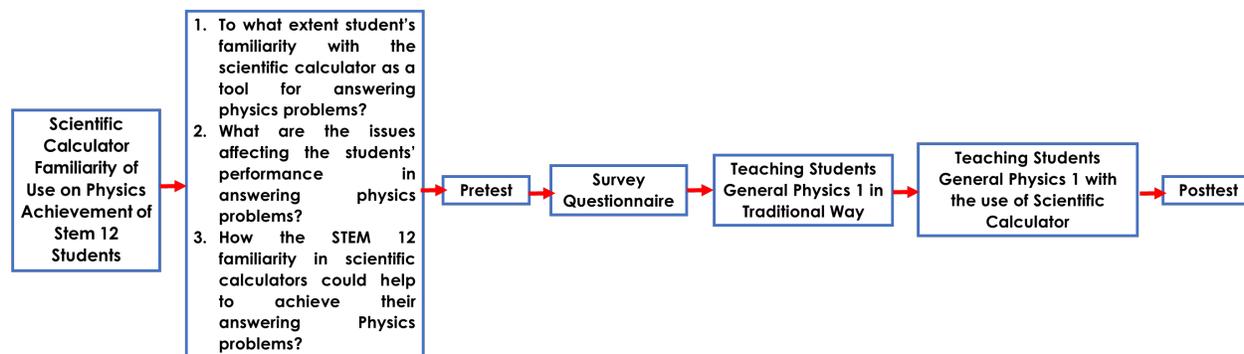


Figure 1. Research Paradigm for Scientific Calculator Familiarity of use on Physics Achievement

4. Research Hypothesis

- i. H_0 - There is no improvement to the students' familiarity in using a scientific calculator to help them achieve in answering physics problems.
- ii. H_a - There is an improvement to the students' familiarity in using a scientific calculator to help them achieve them in answering physics problems.

5. Scope and Limitation

The study only covers the familiarity of the STEM 12 students in using scientific calculators in Science and Math instruction, specifically in Physics. It aims to make a basis in making an instructional design to have a better achievement in Physics subjects. It does not concern other subjects in STEM strand that does not use a scientific calculator and only utilize traditional teaching.

6. Methodology

6.1 Research Participants

The research design utilized a quasi-experimental design. A total of 16 Grade 12 STEM students who enrolled in General Physics 1 in the first semester 2020-2021 in Ramon Avanceña High School choose to be respondents for this research

6.2 Procedures

6.3 Preparation

The lessons for the topic of scientific calculator familiarity of the STEM 12 students were based on the MELC of the Department of Education namely: measurements, vectors, motion in one dimension, and freefall. A pre-test was first conducted for the STEM 12 students. In the synchronous class, they were first taught how to compute in traditional

way. Then, the researcher taught the lessons with the use of a scientific calculator. Afterwards, a post-test will be given via Google form during synchronous session.

6.1.1 Administration

The two days per week class of STEM 12 in their physics class were met on their scheduled time and day. In every synchronous meeting, students were told to have their scientific calculators and as well as their copies of the modules. They also advise to use their respective Gsuite account to avoid dual accounts. This also makes sure the needed security and safety of the researcher and as well as the students against the hackers and as well as other malware.

6.1.2 Data and Analysis

All data collected online will be presented in a tabular form. The total items in both pretest and posttest are 20. The pretest and posttest will be computed for significant differences using the paired sample t-test. The total scores for the two tests were analyzed using the Statistical Package for the Social Sciences whether there is any improvement in the scores are shown in answering the questions. While on the other hand, questionnaires will be computed by the means of part 1 in percentage and part 2 will uses weighted mean.

On the paired t-test, means and standard deviations were computed. The test was used to determine the test scores on the students' achievement in answering physics questions shows a significant difference between the test results in the pretest and the posttest when they are using scientific calculators. The significance level was decided by considering the p values; $p > 0.05$, meant that there was no improvement, $p < 0.05$ said to be that there was a good improvement.

7. Results and Discussion

In this action research, it focuses on the scientific calculator familiarity of use on physics achievement of STEM 12 students was tabulated and analyzed. The results are presented according to the research questions.

1. Student's Scientific calculator familiarity

The study sought first to analyze the student's familiarity with using a scientific calculator as a tool for answering physics problems. The researcher uses the percentage to determine the student's responses.

	Frequency	Percentage
I found myself studying physics during the class itself	7	43.75%
I study physics for less than an hour	5	31.25%

I study physics for at least 1 to 2 hours	3	18.75%
I study physics for more than 2 hours but less than 3 hours	0	0
I study physics until I fully understand the concepts and how to solve the lessons	1	6.25%

Table 1. Number of hours in Studying Physics (n=16)

To determine the student's familiarity with using a scientific calculator, the following are included: number of hours they spend studying Physics; learning the concepts; and ways to solve problems with the use of a scientific calculator as shown in table they only study during the class itself (43.75%). This also shows the student's unpreparedness to learn the lesson and their dependency on the teacher to deliver the lesson. The results support the previous study conducted by Corpuz (2017) in terms of the students spending time studying physics.

	Frequency	Percentage
I know only the basic functions and exponents of the scientific calculator (e.g., +, -, x, /)	10	62.5%
I know how to solve binary functions in the scientific calculator	1	6.25%
I know how to solve logarithms in the scientific calculator	1	6.25%
I know how to solve the sine, cosine, and tangent functions in a scientific calculator	2	12.5%
I know how to put data in a scientific calculator to answer statistical questions	2	12.5%

Table 2. Students' familiarity with using a scientific calculator (n=16)

On the student's familiarity with using a scientific calculator, table 2 shows how the students know only the basics of using it (62.5%). Table 2 also shows one of the challenges students are facing in learning Science with the integration of Mathematics in every lesson. Other factors that face the student's basic skills in using a scientific calculator are accessibility and the poor background in mathematics and thus they make the students a passive learner.

2. What are the issues affecting the students in answering physics problems?

The second part of this research is to analyze the issues affecting the students in answering physics problems. The researcher uses the weighted mean to determine the student's responses.

	Weighted mean	Description	Rank
1. I learn a lot about physics, especially the concepts.	3.75	Agree	1
2. I can understand physics questions and answer them correctly.	2.94	Neutral	3
3. I find it difficult because I do many errors in solving physics problems.	3.5	Agree	2
4. I find it difficult to understand physics because I think that I cannot do it.	2.69	Neutral	4
5. I find myself entering physics class with no idea about the lessons.	2.25	Neutral	5

Table 1. Students' attitudes applying what they learn on physics. (n=16)

As shown in Table 1, they are learning about the concepts (WM=3.75) but applying it in answering Physics problems is quite difficult for them because of errors (WM=3.5). And the students cited that they are neutral in terms of understanding physics questions and answering them correctly (WM=2.94), having an attitude of they cannot do it because they found physics to be difficult (WM=2.69), and having no idea when they are going in general physics class (WM=2.25). This means in terms of their performance in physics, they have anxiety towards learning physics since they are preparing less in every lesson.

	Weighted mean	Description	Rank
1. The teacher will present a new lesson without reviewing what they learned in the previous lesson	1.44	Disagree	5
2. The teacher reviews the past lessons before presenting a new lesson.	4.69	Strongly agree	1
3. The teacher let them do work at their own pace.	3.69	Agree	4
4. The teacher will guide the students after teaching the lesson.	4.5	Strongly agree	2
5. The teacher will give a quiz at the end of the lesson.	3.88	Agree	3

Table 2. Perception of how the teacher presented topics in physics. (n=16)

As shown in Table 2, the teacher reviews past lessons before the new lesson (WM=4.69), the teacher guides the students after teaching the lesson (WM=4.5) were often utilized by the respondents on how the teacher presented the topics in physics. Giving quiz after the lesson (WM=3.88) and letting the students working at their own pace (3.69). And they disagree on the teacher will present new lessons without reviewing what they learned in the previous lesson. In terms of a teacher presenting physics to the students, the teachers

must always come prepared to deliver the lessons very effectively. That makes also shows the importance of class participation based on the study conducted by Eborá (2016).

3. How the STEM 12 familiarity in scientific calculators could help to achieve their answering Physics problems?

Paired Sample Statistics

Table 1. A		Mean	N	Standard Deviation	Std. Error Mean
Pair 1	Pretest	10.3750	16	3.70360	.92590
	Posttest	13.0625	16	4.13874	1.03468

Table 1 (A-B). STEM 12 familiarity in scientific calculator could help to achieve their answering Physics problems.

In table 1.A, it shows the significant difference on students' results in the pretest (Mean= 10.3750, Std. Dev.= 3.70360) and results in the posttest (Mean= 13.0625, Std. Dev.= 4.13874). The student's performances in solving physics problems increase after the treatment of using a scientific calculator during synchronous classes was given to them.

Paired Samples Test

Table 1. B	Pair Differences					t	df	Sig. (2-tailed)
	Mean	Std. dev.	Std. error Mean	95% confidence level of the Difference				
				Lower	Upper			
Pair 1 Pretest - Posttest	-2.68750	1.57982	.39496	-3.52933	-1.84567	-6.805	15	.000

Table 1. B Paired Samples Test

Based on the result in table 1.B, the mean of the difference is -2.68750, the Standard Deviation of the different scores on the 16 samples -1.57982, standard error mean is .39496. the t-value is -6.0805, df = 15 and the significance is .000. The p-value obtained is less than the significance value of 0.05. Thus, we have enough proof to support the hypothesis that there is an improvement to the students' familiarity in using a scientific calculator to help them achieve them in answering physics problems.

8. Conclusion

From the data which undergone statistical treatment, the results are: First, the familiarity of the students on the calculator before enrolling to General Physics 1 class is very basic. In terms of their preparedness like the time, they spent studying the lessons and time to practice what they learn in Physics is less resulting in them being passive learners and dependent on the teacher on what they should learn, especially on Physics.

Second, the issues that affect their performance in answering physics problems are: They feel insecure when they are doing wrong computations; They have only understood the concepts but failed to practice or apply. And last, in terms of a teacher presenting physics to the students, the teachers must always come prepared always to deliver the lessons very effectively.

Finally, the student's familiarity in solving physics problems using a scientific calculator has been verified in this study. The usage of a scientific calculator in solving problems in the General Physics 1 class improves their scores. The score of the students increases and upon answering the question they have seen such confidence in answering the questions after they were taught techniques to solve using a calculator.

9. Recommendation

Considering the findings of the research, the study is an attempt to make teaching science with mathematics an active process for learning and to make the students be more informative and benefited from the use of every technology for learning. The following recommendations were made.

1. In every lesson, the teacher must emphasize problems solving skills and higher order thinking skills that will help the students knows a higher level of science especially in physics that is needed for college and in real-life application.
2. For the students with low academic performance, the teacher should conduct remedial/tutorial classes with the help of a scientific calculator for the students that need attention in mathematics and science subjects.
3. Further studies should be conducted on teaching science in terms of the use of the scientific calculator to show the effectiveness of the tool in teaching towards achievement in answering questions that deal with mathematics and concepts.

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Acceptance, Usability, and Impact of an Online Learning Management System using Google Web-Based Software Office in the Research Productivity of Science Technology & Engineering Students

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Abstract

Prior to the pandemic, collaboration in research teaching which extends beyond the classroom is limited by lack of time and distance. Using a learning management system (LMS) that is user friendly may allow teamwork that is perceived as the desired learning method. This embedded design mixed-method research aimed to use an LMS using Google Web-Based Software Office. The LMS was evaluated in terms of its usability, acceptance, and impact in improving the research output quality of students, while relevant experiences of the students were also gathered using appropriate rigors. All grade 10 STE students completing their research papers were purposively selected, monitored, and guided by experts in paper quality through shared links instantly evaluated with scores from prepared rubrics in Google forms. Quantitative data were then gathered and processed using mean, while textual analysis was done for the transcribed responses. Results revealed that the LMS developed from the integration of Google Docs, Spreadsheet, and Forms can function effectively with high user – friendly and accessibility features for use. It is also effective in improving the quality of research outputs, flexible for use, has easier learnability, and promotes a positive attitude among users. Moreover, the LMS was usable and desirable in terms of its users' experiences, significantly improving the quality of research papers sent to various research competitions at various levels. Since its use is timely for distanced learning education, it must further be evaluated with other usability standards to improve its overall function to be applicable for use in other subjects.

Keywords: Usability, Acceptance, Impact, Science Technology and Engineering Students

Plan Stage

1.1 Teaching Research in the Department of Education

The Department of Education envisions each student in the Philippines to realize their full potential and contribute meaningfully to building the nation through scientific and technological innovations (Department of Education, 2013).

The vision was strengthened with the department enhancing the curriculum specialized for learners to revitalize science education quality and making the curriculum relevant to the needs of the learners in the former, Engineering and Science Education Program, while further hone their skills in Science Technology and Engineering education (ESEP) (Bangcaya and Alejandro, 2015; Department of Education Order 41 series of 2004). In such curriculum, students are allowed to develop themselves with experiences of the research practice preparing them for skills vital for their future development and contribution to Science (Formalejo and Ramirez, 2017).

Research is a holistic approach that, despite being perceived by students as hard, less interesting, and anxiety contributing, is vital to their development in a fast-paced and information-driven 4th Industrial Revolution (Paga, 2013; Sabzwari, Kauser, and Khuwaja, 2009; Adams and Holcomb 2006; Papanastasiou, 2005).

In the 4th IR, the populace is challenged to be equipped with capabilities of finding new concepts, changing learning ways, adapting to thinking patterns, and developing competencies allowing them to fulfill, refine and improve complex and high standard tasks and responsibilities, leading to innovations in various fields, all of which made possible by doing research (Darling-Hammond, Flook, Cook-Harvey, Barron, and Osher, 2020; Yusnaini and Slamet, 2019; Hayat & Yusuf, 2010).

As early as the secondary level – junior and senior high school students through the established specialized curriculum are already encouraged to work with their classmates in work units. As a group, they are stimulated to take full advantage of their potentials while building camaraderie and developing team commitment towards completing their research work (Formalejo and Ramirez, 2017). Working on their researches, students commonly experience difficulty in looking for experts best fit to fulfill their research needs and guide them in the implementation of their methodologies and conduct of experimentation (Boser and McDaniels, 2018). Moreover, they need close monitoring in understanding the main points of their work and the basic rules of writing the manuscript (Tomasca, 2007).

1.2 Concerns in Research Manuscript Completion

Before the conduct of this study, a focus group discussion was done to elicit information from the experiences of both students and teachers in the previous school year as they complete the research manuscripts as required by the competencies and provide guidance based on content standards, respectively.

1.2.1 Students

Students preparing their manuscripts experience concerns brought about by the limitations of technology such as deleted, unsaved works, updating, and editing of manuscript contents at the same place and time, given that their safety is a priority being high school students. In group researches, members can only contribute sequentially and individually to the manuscript. It may come from one author who does editing to the document before the updated version is emailed to another member for peer review and more updating (Dekeyser and Watson, 2006). This purely sequential method has the benefit of being conceptually straightforward, but has obvious drawbacks, as those that do not have document custody can not contribute (ÓBroin and Raftery, 2011). Furthermore, the transmission of documents from one computer to another through flash drives and emails may bring software malware and virus that disrupts computer function and destroys essential documents and a change of format and structure of the manuscript.

1.3.2 Teachers

Most research teachers experience similar cases. They also manage multiple working groups that are expected to complete their research outputs at the same time for compliance and competition purposes. Like students, the multi-disciplinary nature of research requires them assistance from experts as their research specialization and interest are not all the time-aligned to the interest of every working group that needs technical assistance, especially on a specific material, device, experiments, and standards. Furthermore, the abundance of groups limits their ability to manage and evaluate all of them simultaneously using a different medium of communication and monitoring.

1.4 Using a Learning Management System in Research Teaching

There is a challenge in making research teaching practices relevant. Hence, a learning management system can be an action that may positively impact the achievement of desired results. According to Parker and Chao (2007), the use of technology in the classroom encourages the active participation of students as they are more engaged with course content while having an enriched learning process. Also, the use of the learning management system fosters collaboration, which can improve the performance of students (Blau and Caspi, 2009; Ravid, Kalman, & Rafaeli, 2008). Moreover, the use of the learning management system in group projects like research enables each group member to edit each other's text that is commonly perceived as the desired learning method (Tal-Elhasid & Meishar-Tal, 2007).

1.5 Role as researcher

In this study, the I propose implementing an online learning management system using google Google Web-Based Software Office such as docs for manuscript preparation, spreadsheet for monitoring and forms evaluation, and data collection (Mozhaeva,

Feshchenkoa, and Kulikova, 2014). Combining google docs with spreadsheets and forms enables access of all group members from any phone installed with the software and computer, easing collaboration through sharing a document with others as viewers or collaborators (Conner, 2008).

Having known that usability, accessibility, acceptance, and impact are vital in ensuring how a system for learning works, this study is proposed along with the use of an online learning management system using google Google Web-Based Software Office that will provide access not only to the teacher and the students but also to experts providing instant recommendations and evaluation to research papers.

2. Research Goal and Specific Questions

This study sought to answer the following questions: (1) What is the Usability of the learning management system using Google Web-Based Software Office using ISO standard?; (2) What is the acceptance of learners on the use of the learning management system using Google Web-Based Software Office?; (3) What is the quality level of various sections of research outputs of STE students based on the evaluation of external reviewers and evaluators when learning management system using Google Web-Based Software Office?; (4) What are the experiences of STE students on the use of a learning management system using Google Web-Based Software Office?

3. Research Framework for Evaluation of the System’s Use

Evaluation in this study was done based on the framework of Usability by Shackel. According to Shackel, the Usability of an innovation or a system can be evaluated using the following criterion: effectiveness, learning ability, flexibility, and attitude (Thuseethan, Achchuthan, and Kuhanesan, 2017).

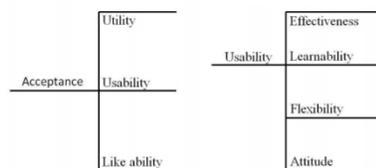


Figure 1. Shackel's definition of Usability (1991)

Do Stage

1. Research Design

A concurrent mixed method commonly referred to as an embedded or nested design was used. The design is a mixed-method design in which one data set provides a supportive secondary role in a study based primarily on the other data type (Creswell, 2003).

Creswell (2003) added that the premises of this design are that a single data set is not sufficient, that different questions need to be answered, and that each type of question needs to be answered, and that each type of question requires a different type of data. The design is particularly useful in the present study as the researchers need to embed a qualitative component within a quantitative design.

2. Participants

Since there are two pathways for collecting quantitative and qualitative data, two sampling techniques were employed. First, for collecting quantitative data, responses of all 72 STE grade students on both questionnaires, together with their performance results in the rubric developed, were gathered to determine the usability, acceptance, and impact of the developed online learning management system using google Google Web-Based Software Office. Since all grade 10 STE students were selected to participate, a total population sampling technique was employed.

In the collection of significant insights, more in-depth and relevant questions were used to verify further the quantitative data collected. To employ this procedure, a set of criteria was established to select students with phenomenal performances in the development of their manuscripts. They were interviewed individually and through focus group discussion, and thus purposive sampling was used.

3. Instruments

Quantitative data for usability, acceptance, and impact of LMS were gathered using two standardized questionnaires and a rubric for research evaluation developed by the researchers.

Cognizant to the idea of Shackel, the developed system was evaluated in terms of its Usability using a robust and widely known questionnaire composed of ten (10) questions developed by John Brooke in 1986, the SUS (System Usability Scale). The SUS is a 10 – item well-researched and widely used questionnaire for perceived usability evaluation (Konstantina, Tselios, and Katsanos, 2015).

Another questionnaire on acceptance was also adopted from Thuseethan, Achchuthan, and Kuhanesan (2017). It was generated from two standard questionnaires the Usability and User Satisfaction Questionnaire (Zins, Bauernfeind, Del Missier, Venturini, Rumetshofer, 2004) and the Environment Instrument (Chang, 1999). The questionnaire consisted of 10 questions picked from both questionnaires and was used to collect data that answered STE students' satisfaction in using the LMS.

Both questionnaires have established validity and reliability constructs with reliability further determined in the local context. The rubric, on the other hand, was subjected to both content and face validity with its reliability set through inter-rater reliability.

4. Data Collection Procedures

Steps were observed by the researchers in the gathering of pertinent data. Situational analysis of FGD results and students from the previous school year and research teachers was first done. Having identified their concerns in the previous school year, approval of school authorities and parents' orientation were both done to inform them of the intent of the study, particularly the LMS overview, features, and requirements. Students were also asked to secure a Google account and download Google Web-Based Software apps on their phones to access Google docs and sheets.

The LMS was developed starting with a Google spreadsheet, which was used for manuscript monitoring. Students were also asked to use google docs for manuscript preparation, and Forms was used for evaluation with consultants and experts. Group communication was then established using Facebook Messenger for updates.

The usability, acceptance, and impact of the LMS were sequentially determined. Overall, Shackel's concept of Usability was used to assess the acceptance of users and how user-friendly the LMS was.

For impact, student's research outputs were monitored in real-time and their involvement in the completion of their research manuscripts. Experts were sought to provide feedback and advice to various research groups through links to their Google Docs.

The experts were also sought to provide evaluation scores on the different subsections of the research manuscript using the rubric set by the researchers. The evaluation was done once all the comments and suggestions of the experts were already complied with by the group. The same process of evaluation was done toward the completion of the research manuscript. Evaluation ratings were then used as data for impact.

Significant insights were then gathered by the researchers among selected phenomenal students. Collection of insights was done through semi-structured individual interviews and a Focus Group Discussion to identify their experiences completing their research manuscripts while being monitored and assisted by the LMS.

Mean was used to process the quantitative data gathered for acceptance, usability, and impact of the learning management system. While the responses of purposively selected students were gathered and were subjected to thematic analysis with compliance to research rigors.

Study Stage

1. Usability

This study highlighted the usability and acceptance of the LMS based on the feedbacks of the BCNHS STE students. It also identified how the system impacts the quality of research manuscripts prepared by the students through their ratings and significant insights. Results revealed that the LMS was an integration of three different systems, all of which having cloud computing features, the Google doc, the Google spreadsheet, and Forms.

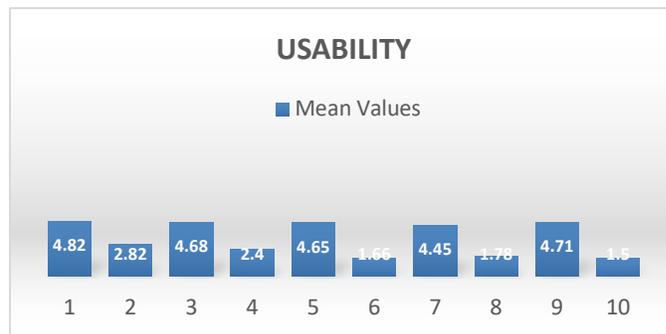


Figure 5. Usability of the LMS using System Usability Scale

In figure 5, the intended users, STE students, consistently responded that they strongly agree with the LMS's appropriateness and its purpose of use to the research tasks that they are required. Their responses may also imply the system's fitness to their tasks where there is efficient and effective monitoring, feedbacking, evaluation, and improvement made possible by the LMS in various research subsections sequentially delivered. It confirms with the results of Althobaiti and Mayhew (2019), showing how usable and desirable the Jusur application was in terms of its users' experiences and perspectives. Findings were also parallel with how eClass and Moodle were used as LMS for students showing a high level of usability when evaluated in terms of use (Orfanou, Tselios, and Katsanos, 2015)

Specifically, the higher user responses to positive statements 1 ($m=4.82$), 3 ($m=4.68$), 5 ($m=4.65$), 7 ($m=4.45$), and 9 ($m=4.71$) show that the system is easy to use and is user – friendly. It also shows that they like the system, and they find it very easy to access and have time flexible web-based content (Alkhattabi, 2015). Results also suggest that the system has well-integrated functions and that they can confidently introduce the system to anyone with ease of explaining its function and purpose to a task.

Negative statements 2,4,6,8 and 10 also obtained appropriate mean score values ($m=2.82$), ($m=2.4$), ($m=1.66$), ($m=1.78$), and ($m=1.5$), respectively. From the results, lower mean values imply that the system provides enough usefulness and functions to what is required by the user. It also grants instant and unlimited access to users, only requiring a single login function and software download while using computers and phones. Results suggest that teachers may only act as facilitators and have set the guidelines for use

among users. Students can already practice their management skills in the system, especially in maintaining and organizing its content and uploading the needed manuscripts for evaluation of both the teacher and the external evaluators. Moreover, in the maintenance of the LMS, responses of users suggest that they may not need an ICT expert anymore, as they can refer to Google sites available for reference

2. Acceptance



Figure 6. Acceptance of the Learning Management System using the LMS Usability Questionnaire

For acceptance, STE students are highly satisfied with the system's function, that despite its simplicity of use, it is well – integrated with other software and functions efficiently and perfectly to what they need in their research class.

It was also found out that the system was appropriate for use in the research class and specifically fit for the manuscript development with an efficient and effective aid for monitoring, feedbacking, and evaluation (Sunkara and Kurra, 2017).

Also, the trend in the mean values presented shows that the developed LMS using Google Web-Based Software Office is a usable and desirable online system in terms of its users' experiences like other LMS such as Juhur LMS and Moodle, which complies with all LMS components considered within the entire learning infrastructure (Althobaiti and Mayhew, 2017; Thuseethan, Achchuthan, and Kuhanesan, 2017). The LMS also provides a learning environment within the system that is satisfying for learners (Alkhattabi, 2015).

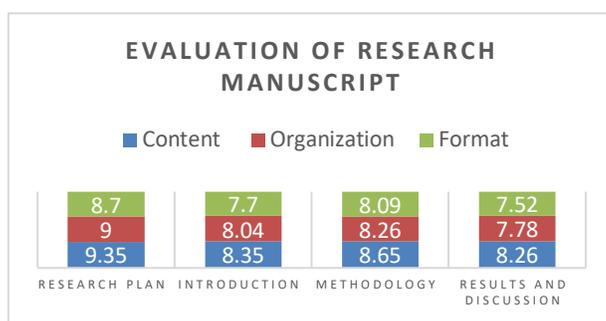
Among all the statements, statement no.1 obtained the highest mean score ($m=4.82$). It suggests that students appreciate learning opportunities in the classroom while simultaneously using the benefits of e-Learning (Mozhaeva, Feshchenko, & Kulikov, 2014). Items no. 8 and no. 4 follows in terms of mean score value, which are ($m=4.77$) and ($m=4.74$), respectively. Results indicate that the system's accessibility is anywhere and at any time (Hamuy and Galaz, 2010).

Also, content development and learning management become useful with Learning management systems (Aybay and Oguz, 2002). Moreover, there have been institutions recognizing the need to incorporate the Learning Management System (LMS) to improve

the engagement of learners, promote participation, offer feedback, and provide support during the learning process.

The item with the lowest obtained mean score, on the other hand, is item no. 7, having a mean score value (m=4.45). Although the mean value is considered high in terms of interpretation, STE students are less satisfied with such features since LMS works with the internet. Poor internet signal is one of the challenges in the implementation of the LMS as it limits the capacity of the students to access the system in places where signal and visual transmission are both low (Gilbert, Sawyer, and McNeill, 2014).

3. Quality of Research Outputs



Range of Mean Score:

- 8.21 10.00 Outstanding
- 6.41 8.20 Very Satisfactory
- 4.61 6.40 Satisfactory
- 2.81 4.60 Fairly Satisfactory
- 1.01 2.80 Did Not Meet Expectation

Figure 7. Mean Rating of the Research Sub-sections by External Evaluators

In figure 7, the mean ratings of various working units in their research plan, introduction, methodology, and results and discussion were presented with corresponding evaluation. Each sub-section is evaluated in terms of content, organization, and format.

Consistently, with real-time monitoring and feedbacking by both the research teacher and experts, various work units obtained mean score values for content, (m=9.35) in the research plan, (m=8.35) in the introduction, (m=8.65) for methodology, and (m=8.36) for results and discussion, that were all interpreted as outstanding.

This suggests that the work units increased their understanding, worked with feedbacks provided, and can comply with the suggestions of both the teacher and the external

evaluator, resulting in an improved output (Alkhattabi, 2015). Overall, the LMS was of big help to STE students (Min, Yamin, and Ishak, 2012).

In terms of organization, variation in the mean ratings of the expert was evident. The research plan and the methodology prepared by all work units obtained mean scores ($m=9.00$) and ($m=8.26$), respectively, both interpreted as outstanding. Both sub-sections of the research paper focused on general procedures. Hence, the evaluators' expertise was vital in guiding the students to come – up with outputs that are considered outstanding in the rubric used for evaluation.

Also, the use of the system allowed networks and collaboration between the experts and the students, together with the teacher, to established all the standard procedures vital to the success of the investigation. Moreover, the very satisfactory mean ratings for introduction and results and discussion sections may be attributed to their complexity of content and the evaluators' standards that would require the development of concepts and analysis parallel to the standards of journals aligned to their field.

In terms of format, the research plan obtained a mean score ($m=8.77$), interpreted as outstanding. However, other sub-sections evaluated all obtained mean values interpreted as very satisfactory. While the formatting of the research plan stood out, it should also be noted that the other sub-sections could obtain mean values that were interpreted as fairly satisfactory.

This suggests that the LMS was also vital in granting both the teacher and the students the medium for coordination and collaboration beyond the walls of the classroom that allowed real-time monitoring and immediate provision of feedbacks guiding the students to prepare the entire manuscript following the standard format (Ustati and Hassan, 2013; Min, Yamin, and Ishak, 2012; Blau and Hameirie, 2010). Moreover, unlike Facebook, the system can support file format and organize discussion in a threaded structure (Wang, Woo, Quek, Yang, and Liu, 2012).

4. Experiences of STE students using the Learning Management System

On the experiences of students, there was joy and fulfillment in completing one of the most difficult endeavors they had in their grade 10 journeys, which they cherished delightfully and sometimes eloquently.

Overcoming boundaries of distance and time

The first theme that emerged out of the transcribed narratives of the STE students was the limitless potential of the system in aspects of time and distance. The system having cloud computing features enables the participants to access shared applications integrated into the system anywhere and anytime.

This lessens instances of staying in school late to work with groupmates, waiting for teacher's availability for initial evaluations, and visiting immersion sites to confirm with experts the appropriateness of the concepts and technical procedures prepared. As shared by on STE student:

"Before we would look for convenient places during weekends to allow us to work together, other groups would plan sleepovers which are usually questioned by parents considering our safety since we are high school students. Using the system, such limitations are provided with solutions. We can now work collaboratively sometimes with our advisers and experts despite our distance as long as we have an internet connection."

The LMS was friendly to anyone.

The system was also very easy to use and is user-friendly to all, especially that you only need a google account for access to the computer and a downloaded application on the phone. The use of each application was also easy as its features are the same as the Microsoft software commonly used today. The Google docs and spreadsheets are almost equal in terms of use and features with Microsoft word and excel. Since it was easy to use, it allowed students to show their work instantly to their parents, subject teachers, and other experts that they would unexpectedly meet for some guidance and reviews.

Experts can easily obtain access to the manuscripts once they approve the request for assistance from the researchers. Despite not being familiar with the system, the simplicity of the applications allows students to easily orient their experts on how to use it to pave the way for more reviews and feedbacks essential for their research manuscript development. An STE student noted:

"The LMS we are using was very simple, all you need is to be familiar with Google office, which is almost the same as Microsoft, and you can already make your research paper. I can show my research manuscript to people I know and immediately ask for comments from them. Everywhere we go, we can access our manuscript and ask our classmates to peer review our work. The system was also very easy to use. On my phone, I have the application which I can open wherever I am while traveling and waiting anywhere I can check the improvements that my groupmates are contributing to our manuscript."

The user-friendly feature of the system makes it easy for anyone to adopt it. Introducing it to others was also easier because it is a public platform where its reference to use was simple and available on the internet. Also, STE students can benefit from integrating classroom and online delivery, as they can pursue further knowledge, thereby increasing their learning outcomes (Min, Yamin, and Ishak, 2012). The LMS lifts BCNHS STE program to Local, Regional and National Fame

The system opened opportunities for users, the STE students who could participate in the division, regional, and national research competitions. It also gave students the chance to have their papers evaluated with screening committees that they could pass. Successfully users using the system were able to ace the competitions in the research fairs that they were able to participate.

Moreover, one BCNHS STE research team was awarded as the Category Champion, particularly the applied science category in the 2020 National Research Fair. Four other research teams qualified as finalists in the same event. Moreover, the same team also won the regional level that enabled them to undergo screening and qualify for the National Science and Technology Fair that features the best researches from every region annually. The STE student shared:

“Using the system, we were able to ace the Division and regional research fair. Our manuscript also passed the reviews of screening committees in two national competitions where our team was awarded as category champion in the Research Fair 2020”. The system was a big help for us as it was easy to use and was also user friendly to those experts we would communicate with.”

Overall the LMS enabled Bacolod City National High School to greater heights with its initial implementation. It was vital not only for the students but also for the teachers, which lessened their difficulties while experiencing the research manuscript preparation process. Moreover, it opened opportunities for more partnerships allowing BCNHS to be recognized by established institutions within the city, the region, and country.

Act Stage

Conclusions

This study aimed to explore the acceptance, usability, and impact of an Online Learning Management System using Google Web-Based Software Office in the Research Productivity of Science Technology & Engineering Students. Results confirmed that the LMS made – up of three different software can function effectively with high user – friendly and accessibility features for the use of students in the research class. It improved the quality of research outputs by the students through collaboration and convenient content sharing. It is also flexible for use, has easier learnability, and promotes a positive attitude among users. It is also usable and desirable in terms of its users' experiences like other LMS.

Research papers also improved significantly when the system was used to facilitate manuscript preparation, monitoring, and evaluation. The LMS positively reinforced the development of students' outputs, as shown in the ratings that were considerably high as manuscripts are further enhanced with the help of both teachers and experts, giving real-time guidance and feedback. Since its use is timely for distanced learning education, it

must further be evaluated with other usability standards to improve its overall function to be applicable for use in other subjects. Moreover, it must be continuously used in research teaching disseminating its research-based use to other research teachers with consideration of experience to further improve their use and teaching practice.

Reflection

In this action research, the LMS was used to help both the researcher, and the learners overcome the limits of distance and time in a research class where monitoring and guidance extends beyond the classroom. The use of the LMS however, did not only help overcome both concerns, it also made possible linkages with experts who can provide reviews and evaluation on manuscript content and technicalities at any time using applications used in the LMS. Moreover, the collaboration with experts made possible links with their corresponding institutions that paved the way for more research opportunities for learners.

In the Department of Education, research projects are usually completed for fairs and competitions, but with use of the system and help of research stakeholders, extended reviews of manuscripts were ventured towards school – based publication of sustainability of the research program.

Overall, it made the researcher realize how technology if properly applied and evaluated for use can impact instructional delivery even in research teaching. With meaningful communication, monitoring and partnership brought about by the LMS, progress in research will continue, supporting the vision of the Department of Education of developing responsible learners that will contribute to nation building.

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Improving Students' Concepts and Confidence Level in Learning Photosynthesis Through 3-Minute Micro-Lectures

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Abstract. The shift to online distance learning due to the pandemic presented a challenge to develop learning materials that could compensate for the limitations of the learning modality. Micro-lectures are short instructor-made videos that meant to deliver lessons in ways that do not overwhelm the learners' working memory in processing information. This action research, using a Quasi-experimental mixed method approach, implemented the use of micro-lectures in teaching photosynthesis to an intact group of sixty grade-12-STEM students to see its effect on their concepts and confidence levels in answering the concept tests. The instruments used were pre-test and post-test with confidence ratings and survey forms. The results showed that watching micro-lectures had a positive effect on students' test performance resulting to medium gain based on Hake's classification. There was also significant difference between pre-test and post-test scores based on paired t-test. Confidence increased for majority of the participants in pre-test vs post-test with significant difference as implied by the results of Wilcoxon Signed-Rank test. In investigating the relationship between confidence ratings and test score, the use of Spearman's rank order showed that there was no correlation between pre-test scores and its confidence ratings, while there was weak correlation between post-test scores and its confidence ratings. This was further analyzed by determining the bias scores in the post-test which revealed overconfidence and underconfidence among students. The data from survey, journal entries, and FGD indicated that students view micro-lectures as an effective learning material that declutter the lessons for better understanding and its segmentation encouraged a more fragmented and flexible way of learning. Moreover, the researcher's account of the development of micro-lectures proved that there are no limitations to making and sharing instructional videos since the common multimedia devices are sufficient, and the constraint to its wide adoption is familiarization.

Keywords: micro-lecture, instructional videos, students' confidence level, teaching biology, photosynthesis, online learning

1 Plan

The health crisis requires great flexibility among learners and educators since traditional learning methods must be cast aside in favor of unconventional means (Chick et al., 2020). Majority of private schools in the Philippines recognized the significance of online distance learning in administering classes as alternative to the traditional face-to-face interactions. Even though the use of internet-based technology has been part of blended learning, the transition to fully online and remote learning still present challenges for traditional schools (Shawar, 2015; Tria, 2020). It is crucial that the learning materials that will be used in online classes must be given special attention (Affouneh et al., 2020). This also means that teachers need to be creative and contemplative in preparing learning materials suited for online delivery.

The sudden shift could also have serious implications for the learners. As a scenario, a class schedule that only permits a single synchronous online session per week means that teachers and students will rely more on asynchronous learning to cover the curriculum. This kind of situation will compel students to practice self-regulated learning with limited guidance from their teachers which could lead to feelings of isolation and loss of interest in learning (Whipp & Chiarelli, 2004; Russo & Benson, 2005). Therefore, the online learning materials must be effective in delivering the lessons in a manner that is clear and suited to learners' needs. Furthermore, poorly designed online learning materials will result to confusion among learners (Mayer, 2014; Kizilcec et al., 2015).

The principles of cognitive load theory have been used as an effective guide in designing multimedia learning materials that could be used in online learning (Mayer & Moreno, 1998). The cognitive load theory states that the human mind can only process very few information at a given time (Sweller, 2003). Hence, multimedia presentations that cram too much information, such as lengthy video lectures, actually impede the ability of the mind to make meaningful learning (Mayer, 2014).

Micro-lectures are a type of educational videos that aims to bridge this gap. Liu & Wang (2013) summarized the definition of micro-lectures as a short video presentation that sharply focuses on a specific topic, it is made by teachers to fit the students' needs, and it is in line with the learning competencies they must achieve. According to Wei, Qiu, and Yu (2017), micro-lectures are different from other educational videos in a way that a) it encourages fragmented learning, b) it enables students to concentrate due to its short runtime, c) it only concentrates on certain parts of the lesson to allow more focus, and d) it supports mobile-learning due to its small file size.

Having discussed the current conditions, the aim of this action research is to determine the effectiveness of the use of micro-lectures in delivering the lessons about photosynthesis during an online asynchronous class for STEM students. The points of interests will be the students' concept knowledge of photosynthesis, their confidence in

answering the concept tests, and their views about the use of micro-lectures in learning. The researcher will also tackle the affordances and constraints of developing and using such learning material.

1.1 Research Questions

This action research investigates the benefits of using micro-lectures in conducting remote teaching. It aims to answer the following questions:

1. What are the students' conceptions and confidence levels about photosynthesis before and after viewing micro-lectures?
2. What is the relationship of test scores to students' confidence level in answering questions in the areas of photosynthesis?
3. What are the students' views of micro-lectures?
4. What are the affordances and constraints in the development of micro-lectures?

2 Do

This study delved into the first cycle of the action research based on the PDSA model. It is a quasi-experimental, mixed methods investigation. The implementation first required the preparation of micro-lectures about photosynthesis by following existing literatures discussing about its development and design-elements that help in reducing cognitive load among learners. The micro-lectures were uploaded to a video sharing platform to become available to students in the duration of the implementation.

The pre-test and post-test with confidence level scales, given before and after the intervention, provided the data to evaluate the effects of watching micro-lectures in the students' concept understanding and confidence levels in answering the tests. Moreover, the triangulated data from survey forms, journal entries, and focus group discussions served as source for the students' views about using micro-lectures. Lastly, the personal account and reflection of the researcher served as basis for the narrative that revealed the affordances and constraints of developing and using micro-lectures in teaching.

2.1 Developing the Micro-lectures

In planning and producing the micro-lectures, the researcher adhered to the guidelines originally set by Penrose (2008) who emphasized the video's very short runtime as its defining characteristic. The improvements added to the format by other practitioners were also put into considerations, such as the inclusion of visual elements to make it more engaging (Guo, et al., 2014; Yang, Zhang, & Tian, 2016). Most importantly, the micro-lectures should agree with the learning theories that it supports. Due to this, the researcher

followed a checklist developed in accordance with the frameworks of Mayer and Moreno (2003) in how to design multimedia presentations that reduce cognitive load. The said checklist, entitled A Research-Based Checklist for Development and Critique of STEM Instructional Videos (Seethaler, et al., 2020), were used by the researcher in the different facets of micro-lecture development. A framework of the development process is shown in below.

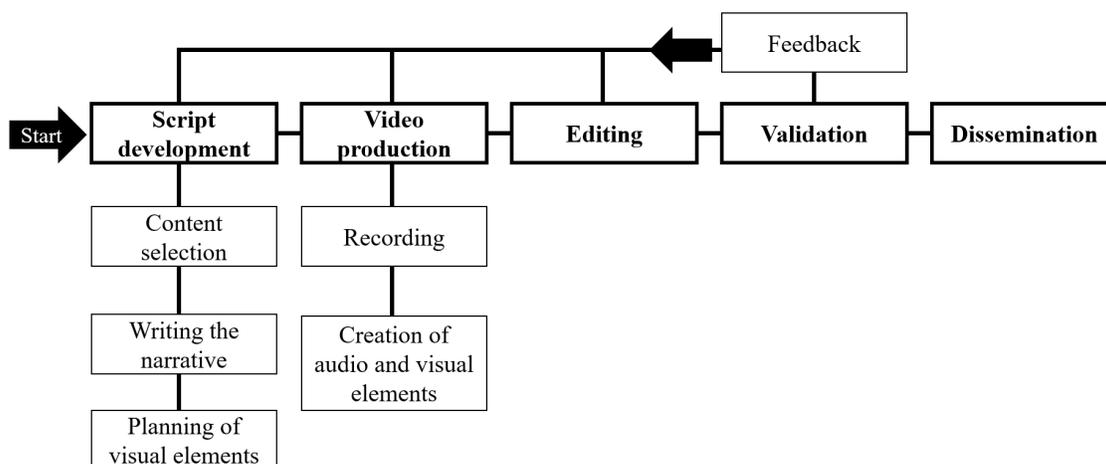


Figure 1. Framework for micro-lecture development

Writing a script is the first step in developing micro-lectures (Liu & Wang, 2013). The researcher made use of DepEd's MELCs to identify the concepts in photosynthesis that should be included in the video. The researcher made use of a smartphone capable of recording in resolution of 1080p in capturing the scenes while a portable microphone was attached to the instructor to clearly capture the discussion. An application called Assemblr EDU was used to generate the augmented reality (AR) objects, while the animated slides were made using PowerPoint slides. In assembling everything into a coherent presentation, a mobile application called KineMaster was used. Then the videos were validated by three (3) biology teachers who are experts in multimedia presentations. Once completed, the videos were shared to the students via YouTube.

2.2 Implementation

The implementation ran for two (2) weeks and three (3) days which covered the last week of November 2020 to the second week of December 2020. It utilized a combination of synchronous and asynchronous remote online sessions. The researcher oriented the participants during synchronous period for general biology using Zoom video conferencing. This was when the pre-test, which was encoded using google forms, was shared to the students through a URL link. The students were monitored through the webcam within a time allotment of 25 minutes. The completed journal entries served as the indicator if a student had finished watching a particular micro-lecture. No exact

deadlines were set for the five journal entries, only that they were expected to finish everything in a span of two (2) weeks. The post-test served as the quiz that covered the lessons about photosynthesis. Due to similarity with the pre-test in structure and specification, a time limit of 25 minutes was also given. Once finished, the students were instructed to answer the survey forms about their views of using microlectures through another google form. The FGDs that involved chosen participants were conducted using Zoom video conferencing.

3 Study

This chapter discusses the data gathered during the implementation of the study. The quantitative data are drawn from the test scores of students accompanied by a five-point Likert scale that measured their confidence level in terms of answering each item in the tests. Another source are the survey forms that investigated the views of students about using micro-lectures in learning photosynthesis. Furthermore, the qualitative data are derived from journal entries, focused group discussion transcripts, and the researcher's observation and experience during the implementation.

3.1 Students' Test Performance Level

The gain scores of each student were calculated using Hake's formula. It can be seen in Figure 2 that 36 students or 64% of the participants achieved a gain of 0.50 and above or 50% and above increase in their post-test. Diversely, 20 students or 35% of the participants got a gain lower than 0.50 or below an average of 50% increase. The highest recorded gains were at 100% while the lowest were at 0%.

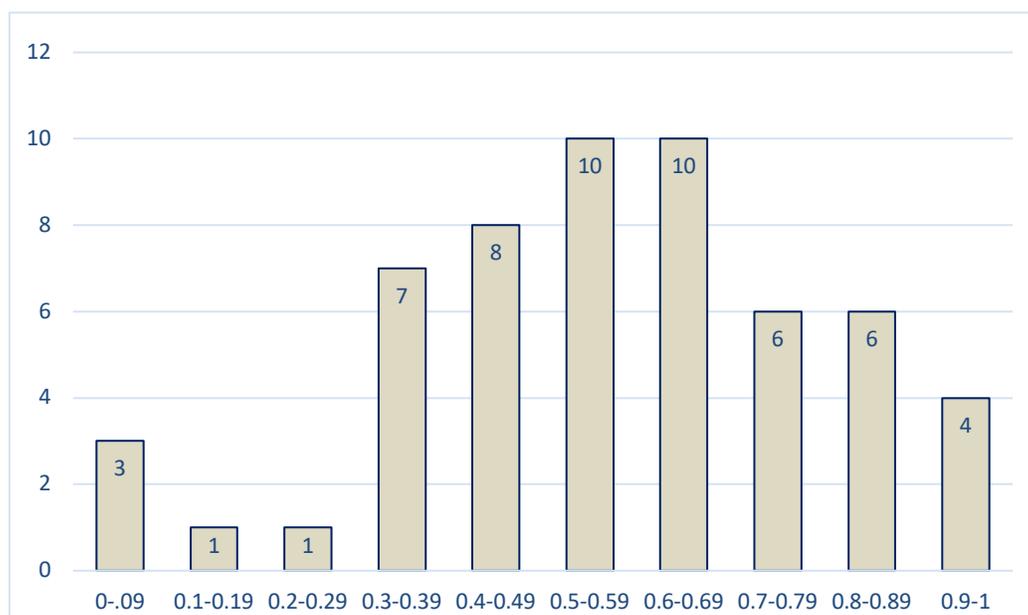


Figure 2. Distribution of score gains among students.

Table 1. Profile of respondents

The resulting average gain (gave) for this study is 0.56 which means that the participants had an average of 56% improvement. Contrasting this to Hake's defined range (Table 1), it can be concluded that the overall improvement is at medium gain since it is less than 0.7 and above 0.3.

Table 1. Hake's range of gain and classification

Criteria	Standard gain score (g)
High g	$g > 0.7$
Medium g	$0.7 > g > 0.3$
Low g	$g < 0.3$

Paired t-test was used to analyze the difference between the pre-test and post-test scores. The results of the data analysis, as shown in Table 2, revealed a p value of less than 0.05 ($p < 0.05$). This means that there is a significant difference between the pre-test and post-test scores of students. These results suggest that the micro-lectures helped in the students' conceptual understanding of photosynthesis as indicated by the increase in their test scores, which is in line with the studies that proved that it has a positive effect on students' academic achievement (Sweet, 2014; Song, 2016; Cai, Li & Li, 2016).

Table 2. Data showing the mean of pre-test and post-test scores, the p-value, and the interpretation.

	Mean	p-value	Interpretation
Pre-test	4	$p < 0.05$	Significant
Post-test	10.12		

3.2 Students' Confidence Level

To get an overall confidence level for each student, the confidence ratings for all the items were averaged, this was in accordance with the studies done by Stankov, Morony and Lee (2013). This provided a bird's eye-view of the students' average confidence in the pre-test and post-test as seen in the Figure below.

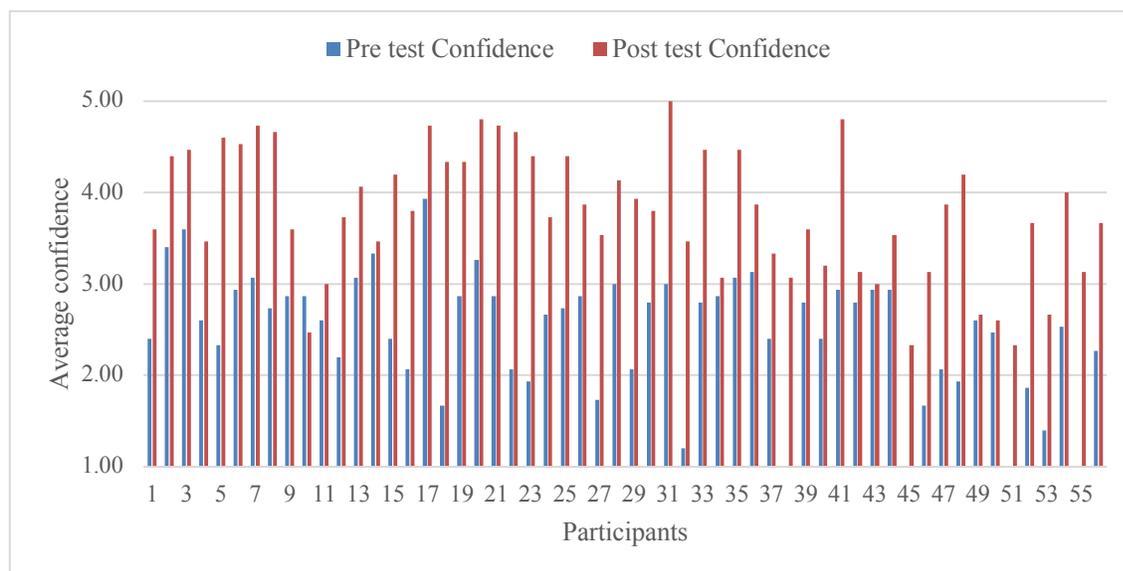


Figure 3. Comparison of the students' confidence level means for pre-test and post-test.

By examining Figure 3, almost all the students had an improvement in their confidence ratings. Contrasting the pre-test and post-test confidence, 16% of the students had an average confidence increase of 2 or higher, 54% had an increase of 1 to 1.99, and 30% had an increase of less than 1. On the other hand, only one student showed a decrease in average confidence with a difference of -0.40. Furthermore, the pre-test's lowest average confidence is 1.00 and the highest is 3.93 with an average standard deviation of 0.84, while the post-test's lowest average confidence is 2.27 and highest is 5.00 with an average standard deviation of 0.84.

To statistically compare the two sets of data, Wilcoxon Signed-Rank Test were used, resulting to a p value of less than 0.05 ($p < 0.05$), implying a significant difference (See Table 6). Therefore, it can be inferred that there is an improvement to the confidence level of majority of the students in answering the questions in the post-test compared to pre-test. Using the description of confidence by Stankov and Lee (2014), it can be said that the students were aware of their knowledge gain after watching the micro-lectures and that "knowing that they know" enabled them to express higher confidence in answering the post-test.

To find out if there were any relationship between the students' confident ratings and test scores, the average confidence of each student was correlated to their test scores using Spearman's rank order (see Table 3). This resulted to correlation coefficients of 0.047 for pre-test and 0.288 for post-test, with p values of 0.731 ($p > 0.05$) and 0.031 ($p < 0.05$), respectively. This suggests that there is no statistical correlation between the test scores and average confidence ratings in the pre-test while there is a weak correlation in the post-test.

Table 3. Table of Spearman's rank correlation coefficient, p-value, and interpretation for pre-test and post-test

	Correlation coefficient	p-value	Interpretation
Pre-test average confidence and test scores	0.047	0.731	No correlation
Post-test average confidence and test scores	0.288	0.031	Weak correlation

To get better insights, the confidence bias scores of the students in post-test were computed by following the equation described by Stankov and Lee (2014) where the confidence ratings were converted to %. Hence, a rating of 5 became 100%, 4 is 75%, 3 is 50%, 2 is 25%, and 1 is 0%. Then the correct answers were deducted from % average confidence ratings. With this, bias scores that are above -10% and below 10% are said to exhibit good calibration, while scores that go above 10% are said to exhibit overconfidence and scores below -10% exhibit underconfidence.

It can be seen in Figure 4 that 22 or 39% of the students demonstrated good calibration in their confidence ratings in relation to their test scores, while 18 or 32% of the students were overconfident, and 16 or 29% were underconfident. This result reflects the findings of Stankov and Lee (2008) which stated that some individuals are not well calibrated in assessing their confidence in relation to their test scores with some having the disposition to be overconfident and some to be underconfident. This is also in the same vein with the studies that indicated that individual differences also play crucial role in confidence ratings (Stankov & Crawford, 1997; Stankov, 1999; Pallier et al., 2002).

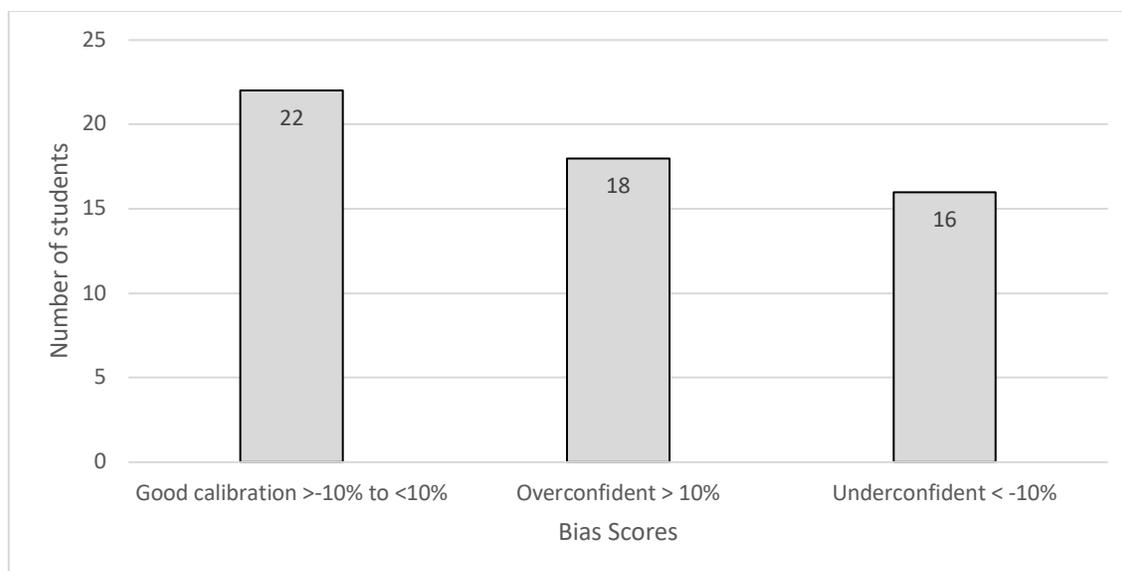


Figure 4. Distribution of confidence bias scores among students in the post-test.

It is also worth mentioning that 14 of the 18 overconfident students were boys and that they also had the highest bias scores recorded. This echoes studies in confidence calibration which suggest that boys are prone to be more overconfident than girls (Pallier et al., 2002; Stankov & Lee, 2007).

In conclusion, watching micro-lectures about photosynthesis had a positive effect in the students' confidence levels as it provided them the assurance that they became more knowledgeable and more prepared in answering the post-test. However, confidence ratings cannot always be correlated to test performance.

3.3 Students' Views of Micro-lecture

The result of the analysis yielded some interesting findings. The major theme that emerged was the high engagement stemming from micro-lecture's short runtime, visual presentations, and teacher presence. Other themes were flexibility in learning, appropriateness in the current learning environment, and the downside which was the lack of possibility for real-time questions.

3.3.1 The micro-lectures are short but content rich; It does not overwhelm, and it is beneficial to students with short attention span.

The students acknowledged the learning material's brief but content-rich feature as one of the main contributors in understanding the lessons about photosynthesis. This is reinforced by their ratings in the first item of the survey form shown below.

Table 4. Item # 1 of the survey, students' response, mean rating and standard deviation.

#	Statements	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)	Mean	SD
1	The Micro-lectures have helped me better understand the lessons.	0	0	1	18	38	4.65	0.52

The narrative provided by the students revealed that they do not like learning materials or teaching methods that introduce so much information during a single session. They even say that they do not learn effectively when they are overwhelmed with too many contents. This supports the assertion that the capacity of the working memory is very limited and that processing too much information at the same time overwhelms it. Aside from this, the inclusion of precise contents that are deemed important streamlines the presentation. This adheres to the framework developed by Mayer and Moreno (1998, 2003).

3.3.2 The students found the visuals very fun and engaging; It also helped visual learners.

One of the important principles of multimedia design is the multiple representation principle, which means that auditory explanations are more effective when accompanied by visuals such as pictures or animations (Mayer & Moreno, 1998; Seethaler, et al., 2020). This reflected their ratings in the second item of the survey shown below.

Table 5. Item #4 of the survey, students' response, mean rating and standard deviation.

#	Statements	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)	Mean	SD
4	I enjoyed watching Micro-lectures.	0	1	3	6	47	4.74	0.64

Visuals play an important role in the learning process, as Snelson and Perkins (2009) posit that videos allow teachers to bring the world to their students by showing past events, reveal natural phenomena, and explore locations without leaving the classroom.

3.3.3 The sense of teacher presence made the micro-lectures more engaging, familiar, and trustworthy.

Students claimed that seeing the teacher gave the videos a more personalized feel, wherein they had the impression that the teacher was actually talking to them. This led them to pay more attention to the lesson. The concept of trust due to familiarity were also mentioned by the students, with some claiming that they do not pay enough attention to other online videos because it did not give them the assurance that the needed concepts will be taught to them. This is in line with the studies that proved that instructor-made videos increase the students' satisfaction and perceived value of the subject (Draus, Curran & Trempus, 2014). This also agrees with the students' rating in item #2 of the survey shown in Table below.

Table 6. Item #2 of the survey, students' response, mean rating and standard deviation.

#	Statements	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)	Mean	SD
2	The Micro-lecture contributed to my overall satisfaction of General Biology.	0	0	4	18	35	4.54	0.63

3.3.4 The micro-lectures encouraged a more flexible way of learning.

The videos' short runtime allowed the students to do repeated viewing and the segmentation of the lessons allowed intervals between times of learning. The five (5) micro-lectures were watched by the students in a time span of two weeks. Within this period, students were given the freedom when and how they want to watch. This type of learning setup appealed to the students because it did not put so much pressure on them to complete the required tasks and it also gave them the liberty to concentrate on one micro-lecture to develop mastery before moving to the next.

3.3.5 The micro-lecture is very appropriate for the current situation.

The students viewed micro-lectures as less stressful due to the option to make their learning more flexible. Moreover, since they were confined in their homes, the videos became a way for them to see the school, the teacher, and observe experiments.

The flexibility and appropriateness of using micro-lectures led students to view it as something worth their time. This was reflected in their rating to # 5 of the survey as shown below.

Table 7. Item #5 of the survey, students' response, mean rating and standard deviation.

#	Statements	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)	Mean	SD
5	The Micro-lectures are worthwhile investment of my time.	0	0	3	14	40	4.65	0.58

3.3.6 Micro-lectures may not be suitable for all subjects and lessons.

The students point that there was no possibility to ask questions if they needed clarifications. According to them, some subjects or lessons that involved problem solving are much better learned through live video conferencing so that ad hoc questions can be entertained by the teacher. The findings agreed with EDUCAUSE (2012) which pointed out that one of the downsides of using micro-lectures was the absence of real time interaction between learner and teacher.

3.4 Affordances and Constraints in Developing Micro-lectures

The process described in this study proved that in making and sharing videos, the common mobile devices were sufficient. The challenges met were all associated with unfamiliarity with how to record the videos, which applications to use, and how to use it. Still, all of these were resolved through continued practice. The researcher assessed that the efforts exerted were sensible due to the feasibility of the videos for long term use. Concerning dissemination, the researcher would have preferred a more cohesive method of delivering the videos while accompanied by the assessments that students need to accomplish. With this, interactions with the learning materials will just take place within a single browser or application while also providing the instructor essential data to the students' progress. Evidently, the school's LMS does not support this yet.

4 Act

4.1 Pedagogical Implications

The findings proved that the use of short and precise instructional short videos had a positive effect in the students' performance and confidence ratings in answering the test. However, it also implied that confidence ratings may not be treated as concrete evidence of how much students learned.

The study established that students learn better in watching micro-lectures due to its short runtime and precise contents. Most importantly, it did not overwhelm with too much information and it benefitted students with short attention span. The presence of rich visuals heightens the students' level of engagement and helped in understanding the lessons, especially for visual learners. The presence of the teacher in the video contributed to a more personal experience and sense of familiarity. Lastly, due to all the characteristics mentioned, the students treated micro-lectures as a valuable learning material in the current learning condition.

4.2 Recommendations for the Next Cycle

the use of micro-lectures in other subjects should be further explored. Especially in disciplines that involved a lot of expositions that overwhelms the students' cognition.

Furthermore, further studies about micro-lectures must also be done with a much larger number of participants using alternative instruments and statistical treatments. Another area that should be explored are the visual elements such as augmented reality,

animation, and teacher presence to know how each of these impact the students' learning.

Finally, since this action research was done within the constraints of time and scope, the researcher recommends that the next cycle involve a longer period of intervention to look into the long-term effects of using micro-lectures.

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Thinking Hats Strategy on Learners' Conceptual Understanding in Force, Motion and Energy

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Abstract. This quasi-experimental study aimed to determine and compare the effect of six thinking hats strategy on learners' conceptual understanding in Force, Motion and Energy (FME) of learners prior and after exposure to approach with thinking-hats and approach without thinking-hats. The control group was exposed to approach without thinking-hats while the experimental group was exposed to approach with thinking-hats. The researcher used statistical tools such as mean and standard deviation for descriptive statistics and t-test for paired and independent sample for inferential statistics. Data analysis revealed that before the intervention, both groups had "low" conceptual understanding in FME but after intervention, the experimental group had a significantly high conceptual understanding than learners on the control group. Results of t-test showed that there was a significant difference in the conceptual understanding before and after intervention to both control and experimental group. This implied that despite proving both approach to be effective for learners' conceptual understanding, the approach with thinking hats strategy was more effective with significantly higher mean gain than the other. The researcher recommends integrating the thinking hats strategy in other subject areas and incorporating it in school meetings, sessions and seminars.

Key Words: Conceptual Understanding, Thinking Hats Strategy

1 Introduction

As our society moves towards progress, it has made life of every individual an easy one. A click to order food, a swipe to meet and connect with friends, a press of "enter" button to move on to the next agenda; all of these are done with minimal movements and rote memory. We cannot deny the onslaught of technology in this digital era. We cannot stop technology from giving us this comfort. The convenience of these technology-aided actions is now integrated in our generation which at same time frees our minds from deeper thinking (Hiscott, 2014).

In the recently conducted survey by Organization for Economic Cooperation and Development (OECD), among the 79 countries tested through 2018 Programme for International Student Assessment (PISA), Philippines ranked the lowest in reading

comprehension and second lowest in science and mathematics (CNN Philippines, 2019). Even with the K-12 efforts to scientific literacy of Filipino learners, it is still a long way to go for the learners to be able to make judgments and decisions regarding applications of scientific knowledge that may have social, health, or environmental impacts.

1.1 Innovation/Intervention/Strategy

Inside the classroom, the teacher takes the role of facilitator and the learners need to have the opportunity to think “outside the box”. By introducing the thinking hats strategy, the learners can use different weapons in their arsenal to view problems in a bigger picture and in tackling them to reach a solution.

The six thinking hats strategy provides a multi-dimensional tool that can dramatically improve the effectiveness and efficiency of how we think and work through problems and therefore develop the concept in our minds. It can be applied to different scenarios based on the aim of the discussion. It is a tool used to enhance real thinking to make the process more productive and focused.

The rapid renown of the six thinking hats strategy is because of its powerful tool set that can be put into practice after learning. Mulder (2011) gave the six thinking hats a clear function and role which identify with each hat. Red hat means emotions which are intuitive reactions or expressions of feelings (but no justification required). White hat means information that considers only information that is available or the facts. Blue hat means process that organizes and is thinking about thinking. Green hat means creativity that makes statements of provocation and investigation and hearing what an idea is about. Black hat means judgment where logic is applied to identify mistakes or barriers and looking for a mismatch. Yellow hat means positive view where logic is applied to the identification of opportunities and looking for harmony.

The six thinking hats adapted in this study have a preset sequence as the following: red is the reaction to the problem; white is the given; blue is the unknown or what to find; green is the actual process of solving; black is the challenges encountered; and yellow is the learning of the learners.

To implement the strategy, the researcher made lesson plans where it was incorporated. The lesson plans with the thinking hats were developed side-by-side with the lesson plan without the thinking hats to indicate differences between the two approaches as shown below.

Table 1. Comparison between Approach without Thinking Hats Strategy and Approach with Thinking Hats Strategy

Approach without Thinking Hats Strategy	Approach with Thinking Hats Strategy														
Elicit	Elicit														
Engage	Engage														
Explore	Explore														
Explain	Explain														
Elaborate	Elaborate														
	<table border="1"> <thead> <tr> <th colspan="2">Six Thinking Hats</th> </tr> </thead> <tbody> <tr> <td>Red Hat (Emotion)</td> <td>Reaction to the problem</td> </tr> <tr> <td>White Hat (Information)</td> <td>Given</td> </tr> <tr> <td>Blue Hat (Process)</td> <td>Unknown/Find</td> </tr> <tr> <td>Green Hat (Creativity)</td> <td>Actual Process of Solving</td> </tr> <tr> <td>Black Hat (Judgement)</td> <td>Challenge Encountered</td> </tr> <tr> <td>Yellow Hat (Positive View)</td> <td>Learnings</td> </tr> </tbody> </table>	Six Thinking Hats		Red Hat (Emotion)	Reaction to the problem	White Hat (Information)	Given	Blue Hat (Process)	Unknown/Find	Green Hat (Creativity)	Actual Process of Solving	Black Hat (Judgement)	Challenge Encountered	Yellow Hat (Positive View)	Learnings
	Six Thinking Hats														
	Red Hat (Emotion)	Reaction to the problem													
	White Hat (Information)	Given													
	Blue Hat (Process)	Unknown/Find													
	Green Hat (Creativity)	Actual Process of Solving													
Black Hat (Judgement)	Challenge Encountered														
Yellow Hat (Positive View)	Learnings														
Evaluate	Evaluate														
Extend	Extend														

1.2 Research Questions

This study aimed to determine the effect of six thinking hats strategy on the conceptual understanding in Force, Motion and Energy (FME) of grade 9 learners. Specifically, it sought to answer the following concerns:

1. What is the conceptual understanding in FME of grade 9 learners before and after exposure to approach with thinking hats strategy, and approach without thinking hats strategy?
2. What is the mean gain on the conceptual understanding in FME of grade 9 learners before and after exposure to approach with thinking hats strategy, and approach without thinking hats strategy?
3. Is there a significant difference in the conceptual understanding in FME of grade 9 learners before and after exposure to approach with thinking hats strategy, and approach without thinking hats strategy?
4. Is there a significant difference in the mean gain on conceptual understanding in FME of grade 9 learners before and after exposure to approach with thinking hats strategy, and approach without thinking hats strategy?
5. What are the learnings and challenges of the learners after exposure to approach with thinking hats strategy, and approach without thinking hats strategy?

2 Methodology

To determine the effect of thinking-hats strategy to learners' conceptual understanding in Force, Motion and Energy (FME), this study used Fraenkel and Wallen's Pretest-Posttest Control Group design where participants were 60 grade 9 learners of Passi National High School officially enrolled for school year 2019-2020. These learners, 30 per group, were selected using match pairing technique and the basis for pairing were their grade 8 FME grade and sex. To determine the conceptual understanding in FME, the main source of data was the result of the Pretest and Posttest from the duly validated researcher-made examination with TOS that encompassed the following grade 9 FME topics: Motion in Two Dimensions, Work, Power and Energy and Heat, Work and Efficiency. During the intervention, the control group was exposed to approach without thinking hats strategy following 7Es lesson plan format while the experimental group was exposed to approach with thinking hats strategy following 7Es lesson plan format incorporated with the thinking hats strategy. Both lesson plans were checked and validated by the experts. During each lesson, the learners were required to consolidate their ideas and record their solutions to the Science Notebooks provided by the researcher.

3 Results and Findings

Results revealed that prior to the intervention, both group of learners had a "low" conceptual understanding in Force, Motion and Energy (FME). However, after intervention, learners under approach with thinking hats strategy had a higher conceptual understanding in FME than learners under approach without thinking hats strategy

Results of t-test revealed that there was no significant difference on the conceptual understanding in FME between both groups of learners prior to intervention which implied that they were comparable. There showed a significant difference in conceptual understanding after intervention that leaned towards the thinking hats strategy being more effective than with none.

Determining the effectiveness of both approaches, t-test results revealed that there was a significant difference on the conceptual understanding in FME before and after exposure to each approach. Both approaches were proven to be effective in improving learners' conceptual understanding, thinking hats strategy was more effective since the mean gain was significantly higher than the other approach. The quantitative results were presented on Table 2.

Table 2. Conceptual Understanding of Learners in FME under Approaches

Without Thinking Hats Strategy and With Thinking Hats Strategy

	Without Thinking Hats Strategy	With Thinking Hats Strategy	p	Remarks
Before Conceptual Understanding	17.63 "Low"	16.47 "Low"	0.333	Not significant
After Conceptual Understanding	24.93 "Average"	34.80 "High"	0.000	Significant
Mean Gain for Conceptual Understanding	7.30	18.33	0.000	Significant

*p<.001

Legend: 0.00-9.99(Very Low); 10.00-19.99(Low); 20.00-29.99(Average); 30.00-39.99(High); and 40.00-50.00(Very High)

On learnings and challenges encountered, learners from the control group recorded their experience that they were following the process where they copy and use the same pattern and application during the discussion to solve problems. Consequently, they become familiar with the process yet became neutral to it where their grasp of the concept was limited and inflexible. On the other hand, learners from the experimental group recorded their experience that they were integrated in the process where the strategy let them examine the problem thoroughly and make them realize their shortcomings and discoveries. The challenge they experienced, however, was being

affective during the process where their feeling were high and conflicts among them are present because of differing ideas which also encouraged them to participate in class.

4 Conclusion

Based on the results, it can be inferred that the thinking hats strategy is effective in improving the learners' conceptual understanding on Force, Motion and Energy (FME) in contrast to the learners under the other approach. It encourages integration during class discussion where learners undergo through the six thinking hats.

5 Recommendations

Introducing this new strategy may be headed by school administrators and other stakeholders where workshops or conventions are held to inform the teachers about thinking hats strategy and its details. As the learners easily grasped the idea of the thinking hats strategy and applied it in the class, suffice to say that teachers can also learn of this strategy which they can integrate into their own classes. It can be done through Learning Action Cell (LAC) sessions and In Service Trainings (InSeT) to reach many teachers. This study has proven that using the thinking hats strategy has improved the conceptual understanding of learners, thus the strategy will also help other teachers in their classes as well. It will finally fall upon the teachers to educate and include such strategy in their delivery of the lesson.

The thinking hats proved to be an effective approach in enhancing the conceptual understanding of the learners, thus it is recommended that the teachers may employ such strategy in their teaching delivery. The result of the study that revealed the significant difference in the thinking hats strategy had, over not using it, implicated the development of the scientific skills and attitude of the learners as well as the internalization and investigation of the problem presented to them. The use of thinking hats strategy may further develop learners' critical thinking and become more reflective of some real-life situations therefore constant exposure of the learners to the strategy inside the classroom is recommended.

For other researchers, they may further investigate the effect of thinking hats strategy by implementing other creative projects or activities that would be beneficial to the learners. Furthermore, studying the effect of thinking hats strategy in developing creative thinking is strongly recommended. The researcher also recommends integrating the thinking hats strategy in other subject areas.

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Xepto Digital Classroom: E-Learning System To Enhance Grade 7 Students' Time-On-Task In Science

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ABSTRACT

With the current pandemic going on and it is still not definite as to when face-to-face classes will resume, the Department of Education has devised ways on how to reach out to the students for them to continue their education. Some schools have adopted different LMS or learning management systems for the students to access using Internet connection, other modalities include modular distance learning and online distance learning. Whatever it is, it is imperative that education will be continued and no learner will be left behind. This study was conducted to determine the Xepto LMS effectivity in terms of enhancing the grade 7 students' time-on-task in Science. The researcher randomly chose 100 grade 7 students using fishbowl technique. The study made use of descriptive method of research. Survey was administered to determine which aspect of Xepto enhanced the students' time-on-task in Science. The activity that enhanced time-on-task in Science the most was the Game Apps while the least preferred was the Summative Assessment. Overall, the Xepto Learning Management System has significantly enhanced the students' time-on-task in Science. Hence, it can be gleaned that having a school-based LMS is an effective strategic tool in enhancing and motivating the students to engage them more in Science. It is strongly recommended that the teachers should be trained to utilize this LMS as an additional option for the students who have reliable Internet connectivity to access learning materials and further enhance their learning.

Keywords: time on task, engage, Science, learning management system

INTRODUCTION

The current pandemic COVID-19 has affected the global population seriously, may it be economic, physiological, physical and of course, educational aspect. The Philippines has now reached over 400,000 number of COVID infections, thus the government is devising ways on how to flatten the curve through proper hygiene and strict social distancing. Social distancing is being strictly implemented and mass gatherings are now being avoided to prevent the spread of the virus.

The Department of Education is now formulating ways on how to implement social distancing in schools and at the same time the students are still learning the most essential competencies. The Department has already adjusted the school calendar so that the students, parents and teachers will be prepared and will be equipped to the “new normal” way of teaching and learning. Some ways of adapting to the “new normal” is the so-called distance learning, blended learning and offline learning. Distance learning, also called distance education, e-learning, and online learning, is a form of education in which the main elements include physical separation of teachers and students during instruction and the use of various technologies to facilitate student-teacher and student-student communication. Muntinlupa Science High School has already adapted to distance learning long before the pandemic has started, because the teachers devise ways on how to put their students on time-on-task even with the suspension of classes brought about by typhoons. There was Edmodo, Quipper and now the Xepto Digital Education. Xepto Digital Education is a social enterprise that provides digital platforms for the distribution of digital content and learning tools for the benefit of teachers and students of all economic backgrounds. This platform was introduced last August 2019 and MunSci teachers were trained to use the platform.

Time-on-task refers to the amount of time students spend attending to school-related tasks (Prater, 1992), such as following directions and engaging in learning activities. 'Time on task' is not a new teaching strategy or learning activity. It is an observation technique that measures the average time students are observed to be engaged in learning during a lesson.

This action research aims to enhance the time-on-task in Science of grade 7 students using the Xepto Digital Classroom as an e-learning tool. Specifically, this study seeks to answer the following questions:

1. What aspect of the Xepto Digital Classroom enhances the students' time-on-task in Science?
 - a. Videos
 - b. Simulations
 - c. Game apps
 - d. Summative Assessment
2. Does the Xepto Digital Classroom enhance the students' time-on-task in Science?

Hypothesis:

The Xepto Digital Classroom enhanced the students' time-on-task in Science.

Methodology:

The study made use of the Descriptive Method of Research using the survey form with options arranged in a continuum of three as in a Likert Scale to determine which aspect of Xepto enhanced students' time-on-task in Science.

Options	Assigned Points	Range of Values
Often	3	2.31 – 3.00
Sometimes	2	1.71 – 2.30
Never	1	1.00 – 1.70

The participants were the grade 7 students SY 2020-2021 of Muntinlupa Science High School. 100 participants were randomly chosen using the fishbowl technique. Statistical treatment such as weighted means and percentages were utilized to be able to determine if the Xepto Digital Classroom enhanced the students' time-on-task in Science.

RESULTS AND DISCUSSION

Summary of Mean Scores of Activities that Enhanced Students' Time on Task in Science

ACTIVITIES	RESPONSES		
	WM	Int.	Rank
1. Videos	2.31	O	2
2. Simulations	2.25	S	3
3. Game Apps	2.5	O	1
4. Summative Assessment	2.01	S	4
GRAND MEAN	2.27	S	

Legend: **O** - Often 2.31 – 3.00 **S** – Sometimes 1.71 – 2.30 **N** – Never 1.00 – 1.70

It can be gleaned that the Grade 7 students of Muntinlupa Science High School engaged themselves most on the Game Apps with a weighted mean of 2.5 interpreted as Often and rank 1. In the study of Figueroa (2015), the use of gamification in L2 learning contributes positively to the learning experience. Gamification helps the L2 learner in plenty of personality factors. In addition, the learner moves forward from an introverted mode of shyness and more motivated based on positive feedback and the game elements used. Videos with a weighted mean of 2.31 also interpreted as Often was the rank 2. In the study of the Kaltura in 2015, 93% of teachers believe that the use of educational videos improves the learning experience. They also serve to break down barriers, such as student and campus location, which were once insurmountable. Simulations which is third in rank, has a weighted mean of 2.25 interpreted as Sometimes.

According to Lateef (2010), simulation-based learning can be the way to develop a learner's knowledge, skills and attitudes and can provide a valuable tool in learning to mitigate other issues concerning the lack of face-to-face access to equipment and procedures. The least engaged activity was the Summative Assessment with a weighted mean of 2.01 interpreted as Sometimes. In the study of Harlen (2007), the impact of summative assessment affected the students' motivation for learning and on teachers and the curriculum. As a whole, the different aspects of Xepto Learning Management System had garnered a grand mean of 2.27 interpreted as Sometimes. This clearly signifies that the activities in the LMS has engaged grade 7 students' time on task in Science.

CONCLUSIONS

The following conclusions were drawn:

1. The activity that has engaged grade 7 students' time on task in Science is the Game App.
2. The activity that has the least engagement of students is the Summative Assessment.
3. The activities in the Xepto Learning Management System enhanced the time-on-task of grade 7 students in Science.

RECOMMENDATIONS

In light of the conclusions drawn from the study, the following are hereby recommended:

1. Gamification is essential now at the time of pandemic to motivate students to learn while they are having enjoyment.
2. Even though the Summative Assessment has the least engagement or preferred by students, it is still important that teachers administer this kind of assessment to check and validate the learning of the students.
3. Since it is still pandemic, teachers should devise different ways to motivate learners even if they are at their own homes. Different activities may still be added to engage and motivate the learners to do their tasks in Science.
4. It is strongly recommended that the teachers should be trained to utilize this LMS as an additional option for the students who have reliable Internet connectivity to access learning materials and further enhance their learning.
5. Future studies using other variables such as science skills, attitude towards the subject or reading comprehension must be conducted relevant to the students' learning styles.

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Sinugbuanong Binisaya nga Physics: Culture-Based Material for Physics Learning

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ABSTRACT. Culture plays a crucial role in the acquisition of knowledge of learners in terms of how motivation shape their Physics learning. The development of culture-based learning materials for Physics was implemented to motivate learners. The learning material utilized *Sinugbuanong Binisaya* as a medium of instruction with an integration of customs and traditions locally found in Dipolog City and applicable in teaching concepts of Physics. The material is composed of three (3) major parts – motivation (*Ang Pagahisgutan*), contents (*Mga Termino nga Gigamit*) which includes conceptual and procedural concepts in Physics and linking real-life scenarios (*Makita sa Palibot*). The developed material was validated by content and language experts. Survey questionnaires and personal interviews were utilized to gather quantitative and qualitative data. Results revealed significant difference on the dimensions of learning except pressure. Thematic analysis of responses showed unique experiences and culture appreciation. Learners have the opportunity to grasp the concept since there is an easy recall of the concepts as these are already marked within the cultural products. It is recommended to develop culture-based materials which highlights application of local practices, cultural markers and trademarks within their community.

Keywords: *Sinugbuanong Binisaya, culture-based material, physics learning, culturally responsive teaching, multicultural education*

1 Plan. Culture-Based Education

The Philippines, being recognized as a hotspot of culturally diverse groups, faces a tremendous challenge of providing inclusive classrooms – responsive to learner's individuality, recognizes the role of cultural roots in their learning and allows a meaningful learning experience. Understanding the dynamics of the influence of learner's background to how they acquire information in their classroom set-up gave birth to multicultural education as an emerging pedagogical area. Although there were already engagements in developing materials for culturally responsive teaching, there is a scarce source of literature describing the experiences, challenges and opportunities in integrating culture-based interventions. There is a few local research engagements in investigating the impact of these interventions towards affective domain of learners in one of the perceived-as-most-difficult subjects.

1.1 Multicultural Education in the Philippines.

Multicultural education caters the needs of ever-increasing diverse groups of learners. This area aims to provide teachers an opportunity to explore various strategies in their classroom instruction which will help in responding the needs of learners from various backgrounds. Schools often address issues focusing on school-related problems. They often neglect the role of influencing factor of home, community and school. The study of interactive roles of these entities can be better understood in the anthropology of education. The phenomenon involving these factors can be classified as culturally appropriate, culturally congruent, mitigating cultural discontinuity, culturally responsive, culturally relevant pedagogy and culturally compatible. Thus, institutions are encouraged to integrate cultural nuances, values and in-depth understanding in improving teaching-learning process (Brown & Cooper, 2012).

In the Philippine context, the acceptance of multicultural education is still to be developed. For instance, culturally responsive teaching among the Obo Monuvu tribe in Cotabato needs to be developed as they lack the skills for cultural competence. Although practices towards academic success prevailed, the need to understand the learner's cultural roots as influential in their academic success will definitely help in developing culturally responsive pedagogy in the educational system characterized by diversity (Pejaner & Mistades, 2020). With the goal of transforming quality education, instructional materials were developed to suit the cultural needs of learners. Morales (2014) determined student's attainment in Physics by developing culturally sensitive instructional materials. The materials used in learning Physics were translated to *Pangasinense*. Aside from the medium used, the customs and traditions related with Physics concepts and are present in Pangasinan culture was integrated in learning materials. Insights from the learners showed how the use of native language made the concepts relatable and easier for them to comprehend. Malaluan and Masangcay (2015) incorporated *Batangueño's* culture-based pedagogy in the development of instructional materials for teachers' classroom instruction in Physics. Through qualitative and quantitative methods, researchers sought to guide teachers in letting there learners appreciate the Physics concepts behind their traditional practices.

1.2 Culturally Responsive Teaching (CRT)

It is defined as a teaching approach where knowledge, experience and frames of reference which were usually anchored with culture becomes the basis of developing materials, learning experiences and classroom instruction to make learning relevant and effective for them. Through CRT, background knowledge on cultural roots help in shaping their comprehension, creating link with what their prior knowledge and could improve the academic achievement of learners. Much of the success comes from the developed instructional materials, tests and materials which illustrate integration of cultural elements towards their classroom instruction. The CRT brings critical roles in educational reforms.

This initiative was seen to be positive in terms of changing the climate or school's treatment towards racial-ethnic identity. Studies have shown that CRT provides higher self-esteem, academic attitudes, well-being and ability to navigate discrimination.

In integrating culture and language of local community, there is a need to complement these interventions in educational setting. For instance, the K to 12 curriculum introduced the use of mother tongue in Philippine schools as ethnic loyalty and honor in utilizing native tongues. The utilization of mother tongue in interesting topics and linguistics. The preferences of teachers and learners should be identified as reasons of declining English language proficiency among students.

The introduction of CRT in educational settings requires engagement as a by-product of motivation. This natural capacity allows ourselves to pursue our goals. Emotions are shaped by culture and while this is collated with culture, we have influenced the language, values, beliefs, behaviors and various aspects in our lives. It is believed that when learner's preference as a being shaped by their home-community culture is not elicited, the level of frustration increases and deteriorates the level of motivation. Thus, the teacher must understand the learner's perspective rather than trying to think what students should do. Teachers should work on how they can motivate learners in performing the tasks providing opportunities for a culturally responsive teaching.

1.3 Culture-Based Interventions and Practices

The introduction of mother tongue based-multilingual education (MTB-MLE) in the basic education curriculum has sparked interests on how local languages can influence learners' ability in appreciating local culture and how the familiarity of local dialect can help them in improving their academic performance. Valerio (2015) found out varying perceptions towards implementation of a language sensitive curriculum. Respondents revealed they are not confident with the MTB-MLE program due to unavailable localized translations of materials needed for the class. The varying perception was influenced by their ethnicity and teaching experience. The acceptance of the MTB-MLE relies on how they perceive the impact of the curriculum, available resources and institutions' capacity.

Two major studies were conducted locally in integrating CRT in the Physics teaching and was contextualized in two local culture in the Philippines; Pangasinan (Malaluan & Magasangcay, 2015) and Batangas (Morales, 2014). The culture-based pedagogy proposed by Malaluan and Masangcay (2015) was applicable in teaching concepts in Physics for Grades 7 to 10. The pedagogy was heavily anchored on *Batangueno's* culture. The researchers developed instructional materials in each component of a lesson plan – review, motivation, activity, analysis, abstraction and application. Each of the developed material employed brief conceptualization of the connection of concepts with local culture. Some of the cultural practices were integrated in the material i.e.

parade of floats to reach motion, dancing *Subli* to teach motion, the natural rhythm produced by *Tugtugan*, an instrument used in dancing *Subli*, to teach sound, the lampara in fishing as concept of teaching light, the painting of Basilica church in teaching light and the process of making *daing* in teaching heat.

Morales (2014) developed instructional materials anchored on the *Pangasinense* culture. The materials integrated were based on the cultural profiling of learners. The unique characteristics of learners became the basis in crafting interventions anchored on cultural aspects. The pre-test and post-test comparisons of concept attainment of Physics were significantly different in favor of the experimental participants (exposed with culture-based interventions). The qualitative analysis of data from interviews, focus-group-discussions, logs, and observations showed similar trends in terms of achieving better learning using the culture-based interventions.

2 Do. Analyze, Design, Development, Implement, Implement and Evaluation

2.1 Analyze

The researcher employed action research design in conducting the study. Furthermore, quasi-experimental design was utilized to measure the effect of developed material on Physics learning. The study started with short interview with elementary teachers in various elementary schools in Dipolog City to assess the resources use for their Mother Tongue Based Multilingual Education (MTB-MLE) and verify the dialect used in the subject. After the approval of conduct of study from the Office of the School Principal, the researcher coordinated with the Grade 7 Physics teachers who will be handling the subjects for 3rd Quarter. The research participants (N = 56) are Grade 7 learners of Zamboanga del Norte National High School who preferred digital modalities in the new normal learning.

2.2 Design

The conceptualization of the developed module started with identifying cultural markers within the locality. The cultural marks represent an icon, tradition or landmark where Physics concepts can be applied. These cultural marks were integrated within the identified topics for 3rd Quarter of SY 2020-2021 namely Motion in One Dimension, Accelerated Motion, Motion of Objects and Waves Around You.

2.3 Development Contents of the developed modules for Region 9 were also visited to ensure consistency of topics delivered in the school distributed module and developed materials. Three (3) lay-out artists, three (3) language experts and three (3) physics teachers were asked to validate the module using evaluation forms. The developed module was revised based on the ratings, comments and suggestions. The revised modules were verified by the content and lay-out validators before it was implemented.

2.4 Implementation

The researcher created a Facebook page where learners can access the modules, accomplish the Google forms and send inquiries on the utilization of modules. The module was utilized for four (4) weeks. The materials will serve as their supplementary material or reference aside from module distributed by their teachers. Learners will just visit the Facebook page and click the link which will direct them to the modules. A survey form on motivation towards Physics learning was also conducted after the orientation. The survey form was adopted from Intrinsic Motivation Inventory. After the allotted four-week period, students need to accomplish the survey form on motivation. The teachers provided a list of 10 students who are available for focus group discussion. The students were divided into 3 groups and FGD was conducted through Google Meet. The goal of FGD was to narrate their experiences in using the developed culture-based module.

2.5 Evaluation

Descriptive – mean, standard deviation - and inferential statistics – dependent t-test - were used to analyze quantitative data from validators' ratings and survey forms. Thematic analysis was used to analyze the responses of participants from the FGD.

3 Study

3.1 Sinugbuanong Binisaya nga Physics as a Culture-Based Learning Material

Significant trademarks, local practices, traditions and culture were integrated in the Physics modules. Table 1 shows the cultural elements and the corresponding topic.

Table 1. Cultural Markers integrated in culture-based modules

Module Topic	Cultural Markers
Motion in One Dimension Acceleration	Dipolog City Boulevard, sports enthusiasm Linabo Peak, Katkat Sakripisyo (Sacrificial Climb During Holy Week)
Virtual Representation of Motions	Rotunda – representing Lumads, Christian and Muslims in Dipolog City
Waves	Dipolog City Bay, love for environment and Dipolog City's clean city icon

The developed culture-based material has an over-all rating of 'Excellent' from the Physics teachers, 'Good' from language experts and 'Good' from lay-out artists. The evaluation implies the developed material is now ready for the implementation to Grade 7 learners. The general comments were concerns on the inclusion of real images, larger font size, revisions on the use of dialect and inclusion of other cultural marks, icons, trademarks and practices in Dipolog City. Figure 1 shows the sample of culture-based module.

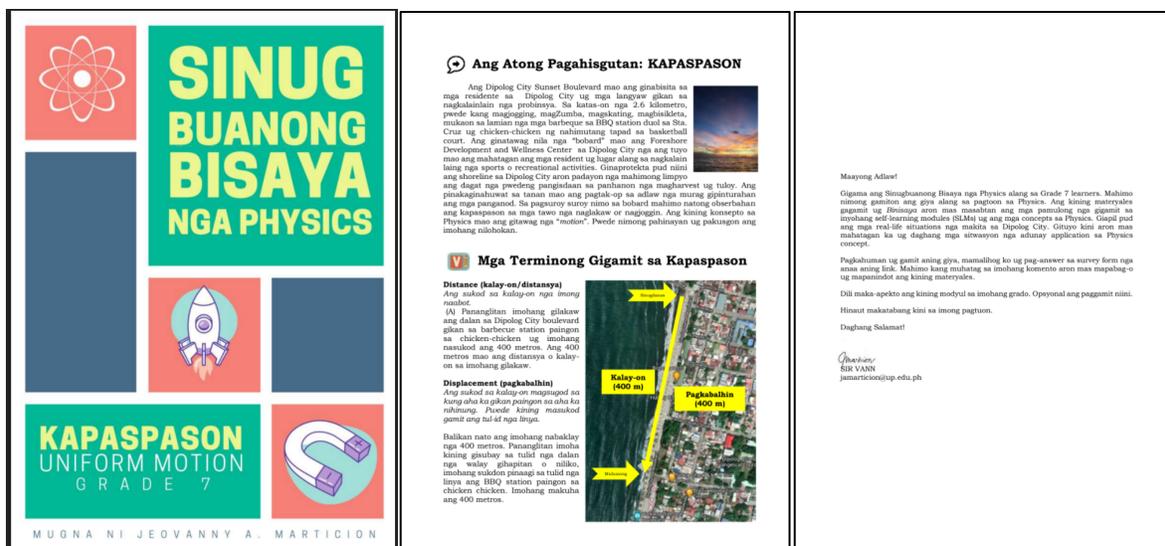


Figure 1. Sample of Developed Culture-Based Module

3.1 Quantitative Analysis

Figure 2 shows the means of intrinsic motivation of learners before and after the intervention. The graph shows participants have lower confidence on their perceived competence in learning Physics before the intervention. On the other hand, pressure or tensions got the highest mean before the intervention. It can be implied how pressure or tensions in learning Physics can be attributed to their perception on individual competence to learn Physics.

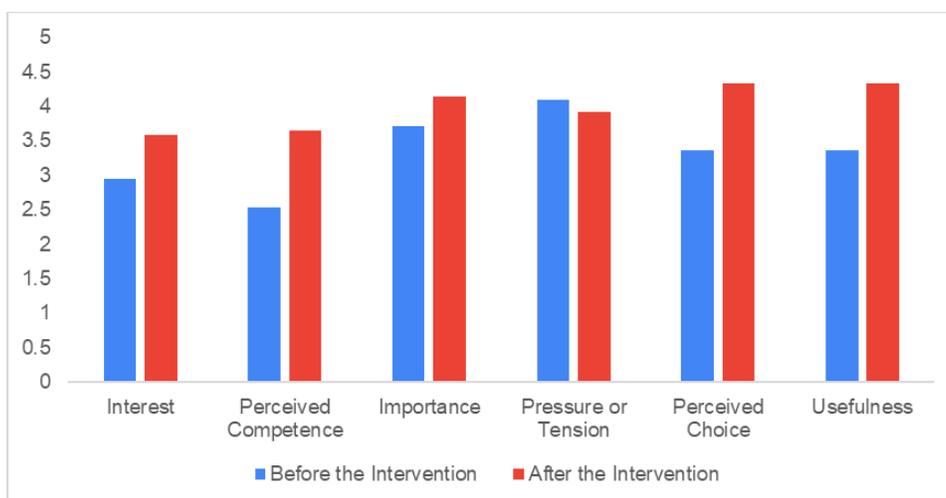


Figure 2. Dimensions for Intrinsic Motivation Before and After the Intervention

Meanwhile, the post intervention phase shows higher levels of dimensions of their intrinsic motivations compared to pre-intervention phase. Furthermore, inferential analysis was conducted to test the significant difference of the levels of motivation. Table 2 shows the test of difference of participants' motivations before and after the interventions. Dependent t-test shows significant difference in all dimensions except pressure or tensions at 0.05 level of significance. The results imply how the utilization of culture-based module motivated learners to become actively engage, direct themselves towards achieving their goals and apply what they have learned in real-life scenarios. However, the level of pressure and tensions has no significant change before and after the intervention. This implies how learners still have the anxiety towards the subject. It should also be noted that even with the absences of significant difference, the mean after the interventions was comparatively lower after the intervention.

Table 2. Test of Difference on the level of students' motivation before and after the intervention

Dimensions	t	p-value
Interest	-4.392	.000
Perceived Competence	-11.049	.000
Importance	-5.325	.000
Pressure/Tension	1.636	.105
Perceived Choice	-13.651	.000
Usefulness	-5.300	.000

3.2 Thematic Analysis

Analysis of responses from the FGD was conducted through thematic analysis. Responses from the participants' experiences showed relevant themes: unusual elements, appreciation towards local culture and support for local dialect.

Unusual Experience. Most of the participants expressed an unusual experience with the developed culture-based material. The participants found the approach very unique. Furthermore, the use of dialect was also a breakthrough of commonly used materials. According to Participant 1, "*Murag awkward siya paminawon pero pwede diay siya magamit sa Science*(it was a little bit awkward at first but when you get to immerse yourself with the material, you would realize it is possible to use the language in Science)". On the other hand, Participant 2 finds the material very new since most of the developed materials used English language or Tagalog, "*This was new to me kay mostly english may gamit* (since most of the materials used English as medium) or Tagalog". Finally,

Participant 5 expressed delight although there was still confusion with the uniqueness of material, "*Ma-amaze ka kay pwede diay magamit ang Bisaya sa amoang mga module (it just amazed me because who would have thought you could use Bisaya as medium for the material)*"

Appreciation towards local culture. Participants found the material as one way for them to appreciate the local culture in their community. This was also an opportunity to revisit the examples used in the developed culture-based module and raised their awareness towards local culture. Lastly, it made them realize how these trademarks is relatable with Physics concepts. Participant 6 said "*It actually helped me realize why rotunda *duol sa Jollibee (near Jollibee) exists abi nako structure lang jud siya pero (I thought it was just a structure but) it is all about unity plus naa diay concepts of Physics nga magamit kung mutuyok mi sa rotunda (in addition, we can apply Physics concepts whenever we turn around the rotunda.*"*

Support for local dialect. There were also realizations on how the materials for their future subjects can utilize local dialect in their references. For them, they found this approach relatable, discourages discrimination and allows participation. Participant 2 said "*feel nako mas wala ko kafeel nga madiscourage ko*". Participant 3 expresses the same feeling "*I think there was more empowerment for students like me who found the use of English only good for intelligent students*". On the other hand, Participants 8 and 10 expressed the call for support on local dialect. "*dapat jud natong gamiton ang Bisaya kay atoa man ni sinultian (we should use Bisaya since this is our own dialect)*", "*I heard that dialects in other places are getting extinct so dapat nato siya ikeep (we should preserve this)*".

4 Act: Implications to Science Education

The developed culture-based material has shown potentials in motivating learners in Physics learning. When learners are exposed to materials where they find it very relatable due to their cultural roots, they inculcate lifelong learning and find holistic meaning of concepts. This practice could also help in increasing cultural awareness which is crucial in the social-emotional development of learners. Furthermore, keeping the practice helps in preservation of culture and tradition in the community.

Science education should be anchored with local culture and contextualized in community. This provides opportunities for learners to harness the potentials of their customs and traditions and how these can be applied in the context of Science teaching-learning process. It also bridges the gap between science education and culture.

Schools should initiate programs and initiatives on crafting culture-based materials which aims to enhance and enrich learning of students. This will provide the community

stakeholders the opportunity to collaborate and come up with a unifying framework of culture-based education.

5 Reflection: Towards Development of Contextualized Framework on Culture-Based Pedagogy

5.1 Development of frameworks/models. The developed frameworks provide a common theme on how learner's cultural roots help in shaping their learning experience. The knowledge established by learners has already become influenced by the culture of their home and community. The link of home-community aspect should be given attention as it becomes crucial in the acquisition of basic concepts in science education. The goal of CRP frameworks is for every academic institution to formalize the intervention in the educational setting. Through this initiative, we help preserve our identities and improve the willingness of institutions to craft materials critical in students' learning.

5.2 Student outcomes in culture-based science education. Although this educational reform seems to be novel and might even appear as unconventional for some educators, the attempt of integrating culturally relevant teaching should be pursued as it provides opportunities for the academic success, intrinsic motivations and career pathways of learners.

5.3 Relevance of CRP in science education. The status of science education in the Philippine basic education is undeniably poor in terms of improvement, achievement and translation of concepts in real-life settings. Efforts were pushed to mitigate the declining performance of learners. This paved way for various interventions in terms of development of materials, teaching strategies and personnel development. This is about time to introduced educational reforms as highly suggested in CRP. Although these were already conducted, there has to be a unifying framework or models which can be adapted and enhanced by research and educational institutions to assess its impact on learner's academic performance. Morales (2014) has developed a framework specialized on cultural education framework in science education. This serves as a springboard for various schools to become fully engaged in science education through the aid of culture-based interventions. However, with scarcity of local frameworks or models on development of culture-based instructional material, there is a need to spread sparks in various research communities to investigate the feasibility of culturally anchored classroom instruction.

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Transforming Ideas to Products: Design Thinking on Learners' Conceptual Understanding and Performance Task Rating in Physics

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Abstract. This quasi-experimental study aimed to determine the effect of design thinking on Grade 8 students' conceptual understanding and performance task rating in Physics. Moreover, this study aimed to find out the learnings and challenges of students from both groups. The control group was exposed to non-design thinking methodology while the experimental group was exposed to design thinking methodology. Results revealed that prior to the intervention, both groups had "low" conceptual understanding in Physics but after the intervention, design thinkers had significantly higher conceptual understanding compared to non-design thinkers. Results of t-test revealed that there was a significant difference on the conceptual understanding in Physics before and after exposure to each methodology. Although both methodologies were proven to be effective in improving the conceptual understanding in Physics, design thinking was more effective as the effect size and mean gain in conceptual understanding were significantly higher than the other. The performance task rating in Physics was also noted to be significantly higher for design thinkers than non-design thinkers. Further investigation about learners' learnings and challenges revealed that although guided with activity sheets, non-design thinkers failed to correctly interpret the procedure while design thinking was considered to be an avenue for active learning where learners develop scientific skills and attitudes.

Key Words: Design Thinking, Physics, Education, Output-based

1 Introduction

The emergence of technology and the increase in knowledge are noted to be some of the products of Physics. Gadgets including laptops, mobile phones and tablets are made possible under the principles of Physics on Electromagnetism. The use of car airbags as life-saving devices can be explained by Mechanics. The common Filipino misconception like "Pakisira ng pinto, lalabas ang aircon" can be corrected after reviewing the laws of Thermodynamics. The occurrence of rainbows and the production of sound/s by human voice and musical instruments can be simplified by Optics and Acoustics, respectively. Furthermore, the life-changing invention, Global Positioning System (GPS) that makes every traveler's journey easy and stress-free is in line with the concept of Relativity.

Despite the countless applications of Physics in the society, most high school students dislike the subject because they believe that the topics under it are difficult, boring, and uninteresting (Tan, 2017). This maybe be one of the reasons why Philippines ranked second to the last in terms of Science Education as per the results of Programme for International Student Assessment (PISA) in 2018 (DepEd, 2019).

1.1 Innovation/Intervention/Strategy

With the problems mentioned above, the researcher used a design-centered instruction for Physics where students transform their ideas into products, hence the name Design Thinking.

The process of design thinking involves five stages such as Empathize, Define, Ideate, Prototype and Test (Dam & Siang, 2017). On the Empathize Stage, students gained an emphatic understanding of the problem by writing what they knew, what they have observed, what they have experienced, and what they've heard from the experts and other persons concerned regarding the problem. In simpler words, it is on this stage where students tried to find answers to the problem. The students then carefully define the problem using the information gathered from the Empathize Stage. The students in the Ideate Stage suggested possible solutions to the problem. The solutions to the problems were based on the data gathered during the Empathize Stage. The solution included the steps on how to create a product that would solve the problem, reasons for coming up with the product, materials to be used and the steps on how to construct the product. On the Prototype part, the students drew the picture of the product they are trying to create and used that to come up with a tangible product. Finally, the Testing Stage of the design thinking process allowed the students to test the effectiveness of the products they have created as answers to the problem. Given that the product is seen to be ineffective, students are encouraged to revise and retest the product.

This five-step process of design thinking was embedded on the DrSHIRLEY lesson plan format. This is similar to the usual 7Es of Inquiry-based learning but with a little modification. The table below shows the comparison between the 7Es and DrSHIRLEY lesson plan formats.

Table 1. Comparison between Inquiry-based Learning and Design Thinking Methodology

Inquiry-based Learning (7Es)	Design Thinking Methodology (DrSHIRLEY)
Elicit	Drawing Out Students' Previous Knowledge
Engage	Snagging Students' Interest
	<ul style="list-style-type: none"> • Emphasize • Define

Explore	Honing Skills Through Design Thinking Methodology • Ideate • Prototype
Explain	Introducing the Output Refining Ideas and Presenting Concepts • Testing
Elaborate	Laying Down Learning to New Situations to Deepen Understanding
Evaluate	Evaluating Learning
Extend	Yielding Students' Knowledge through Extension Activities

1.2 Research Questions

The study aimed to determine the effect of design thinking methodology on the conceptual understanding and performance task rating in Physics of Grade 8 students.

Specifically, it aimed to answer the following questions:

1. What is the conceptual understanding in Physics of Grade 8 students before and after exposure to design thinking methodology; and non-design thinking methodology?
2. What is the mean gain on the conceptual understanding in Physics of students after exposure to each methodology?
3. What is the performance task rating in Physics of Grade 8 students after exposure to each methodology?;
4. Is there a significant difference in the conceptual understanding in Physics of Grade 8 students before exposure to each methodology?
5. Is there a significant difference in the conceptual understanding in Physics of Grade 8 students after exposure to each methodology?
6. Is there a significant difference in the conceptual understanding in Physics of Grade 8 students before and after exposure to each methodology?
7. Is there a significant difference in the mean gain on the conceptual understanding in Physics of students after exposure to each methodology?
8. Is there a significant difference in the performance task rating in Physics of the Grade 8 students after exposure to each methodology?
9. What are the learnings and challenges of students after undergoing each methodology?

2 Methodology

The study adopted Fraenkel and Wallen's Quasi Experimental-Matching Only Pretest-Posttest Control Group Design in which the subjects were the 60 selected Grade 8 students of Passi National High School, SY 2018-2019. The participants (30 students per group) were match paired according to their Science 7 grade and sex. To determine the conceptual understanding in Physics, the main source of data was the result of Pretest-Posttest scores from the duly validated teacher-made test with TOS encompassing the topics Heat, Sound and Light. For performance task rating, the outputs were evaluated using a duly validated rubric. During the six-week intervention, the control group (non-design thinkers) was exposed to non-design thinking methodology following the 7Es lesson plan format while the experimental group (design thinkers) was exposed to design thinking methodology following the DrSHIRLEY lesson plan format with the permission of d. School, Stanford University. Both lesson plans were checked and validated by the experts. In coming up with their products, design thinkers were guided with Design Thinking Manual while the other group was guided with activity sheets. After making their outputs, students were required to write their learnings and challenges encountered in their Science Journals.

3 Results and Findings

Results revealed that prior to the intervention, both groups had a “very low” conceptual understanding in Physics while after the intervention, design thinkers had a higher conceptual understanding in Physics as compared to non-design thinkers. This is also true when comparing the mean gain conceptual understanding and the performance task rating in Physics.

Results of *t*-test revealed that there was no significant difference on the conceptual understanding in Physics of both groups prior to the intervention which means that both groups are comparable. A significant difference in conceptual understanding after the intervention was noted making design thinking more effective than the other.

Assessing the effectiveness of both methodologies, *t*-test results revealed that there was a significant difference on the conceptual understanding in Physics before and after exposure to each methodology. Although both methodologies were proven to be effective in improving students' conceptual understanding, design thinking was more effective since the effect size and mean gain were significantly higher than the other method. The mean gain for conceptual understanding and the performance task rating in Physics were also noted to be significantly higher for design thinkers than non-design thinkers. The quantitative results were shown on Tables 2 and 3.

Table 2. Conceptual Understanding and Performance Task Rating in Physics of Non-Design Thinkers and Design Thinkers

	Non-Design Thinkers	Design Thinkers	P	Remarks
Pre-Conceptual Understanding	14.37 "Very Low"	13.70 "Very Low"	.441	Not Significant
Post Conceptual Understanding	26.57 "Average"	34.73 "High"	.004	Significant
Mean Gain for Conceptual Understanding	12.20	21.03	.000	Significant
Performance Task Rating	78.26 "Fairly Satisfactory"	90.35 "Outstanding"	.001	Significant

*p<.05

Legend for Conceptual Understanding: 8.00-16.20 (Very Low); 16.21-24.50 (Low); 24.51-32.80 (Average); 32.81-41.10 (High) and 41.11-49.40 (Very High)

Legend for Performance Task Rating: Below 70 (Did Not Meet Expectations); 75.00-79.49 (Fairly Satisfactory); 79.50-84.49 (Satisfactory); 84.50-89.49 (Very Satisfactory) and 89.50-100.00 (Outstanding)

Table 3. Difference in Pre and Post Conceptual Understanding of Non-Design Thinkers and Design Thinkers

	Non-Design Thinkers	p	D	Design Thinkers	p	D
Pre-Conceptual Understanding	14.37	.000 (Significant)	1.55	13.70	.000 (Significant)	2.69
Post Conceptual Understanding	26.57			34.73		

*p<.001

On learnings and challenges encountered, students viewed non-design thinking (pure 7Es) as a guided construction of knowledge where they have learned concepts after constructing and cooperating while doing group work without questioning. Although directed with activity sheets in problem solving, most of them failed to correctly interpret the procedure. On the other hand, design thinking, according to the other group, was an avenue for active learning and developing their scientific skills and attitudes while

performing their activity. Moreover, they have imbibed the value of cooperation while brainstorming as they work as one. Design thinkers' biggest challenge though, was conflict among members due to diversity of ideas but their optimism considered these challenges an opportunity worth the risk.

4 Conclusion

From the results, it can be inferred that design thinking is an effective strategy in improving the conceptual understanding and performance task rating in Physics of students as compared to non-design thinking methodology. It is an avenue for active learning where students solve Physics problems by undergoing the five stages of design thinking.

5 Recommendations

Since this study had proven the effectiveness of design thinking in the classroom, teachers are encouraged to use this method to improve student's comprehension on a given topic in Physics or in any science subject. By doing so, the Mean Percentage Score (MPS) and General Scholastic Average (GSA) of the students as monitored quarterly will be improved. This can be introduced to them during In-Service Trainings (InSeT) and Learning Action Cell (LAC) sessions.

Design thinking was also proven to improve student's performance task rating with the use of Design Thinking Manual as a guide. That is why, teachers are encouraged to use this in problem solving and project making as well as in Science Investigatory Project (SIP) more so that it involves an innovation as an end goal.

If properly introduced to both teachers and students, the use of design thinking can improve students' rating for written works which comprises 40% of their grades, performance task which is also 40% and the remaining 20% is for their quarterly exam in Science. As an effect, design thinking can be of great help in uplifting our global ranking in terms of Science Education.

The use of this methodology may be hard for some, especially those who have just encountered it, but the results of this study are proofs that design thinking is an opportunity worth the risk.

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Effect of Phet Simulation on Students' Achievement Score and Attitudes towards General Physics 1

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Abstract. This action research explored the effect of using Phet Simulation as a virtual lab on STEM 12 students' achievement score and their attitudes towards Physics. This study used a quantitative experimental pretest versus posttest control-group. The independent variable was the different learning method (modular with Phet Simulation versus modular learning alone). The dependent variables were the achievement scores and attitudes towards Physics. Both groups were pre and post-tested by means of two instruments: achievement test and Physics Attitude Scale (PAS). An independent T-test was conducted on the pretest scores of the achievement test, it showed that there was no significant difference between the mean scores of the two groups, revealing that the two groups do not differentiate at the beginning of the study. After 6 weeks of treatment, a paired T-test result showed that there was a significant difference in the scores of pre and post-test for the experimental group and for the control group. Finally, comparison of means of PAS scores before and after implementation revealed that there was a significant difference in students' attitudes towards Physics of both groups. Thus, integrating Phet Simulation to modular learning enhances students' understanding and promotes positive attitudes towards the subject.

Keywords: General Physics, Phet Simulation, virtual lab, STEM, PAS

1 Context and Rationale

General Physics 1 is one of the specialized subjects offered to Grade 12 Science, Technology, Engineering and Mathematics (STEM) strand. One of the integral parts in studying physics is performing laboratory experiments since it makes the comprehension of difficult theories simpler and clearer. With the on-going COVID-19 pandemic, the Department of Education issued a memorandum preventing a face-to-face instruction and opt to distance learning modalities where modular learning approach is currently on its implementation here at Pigcawayan National School. Even in a normal set-up STEM 12 students had a hard time grasping physics concepts and believed that the subject is all about numerical computations. From this standpoint an innovation/ intervention was conducted in order to address these issues.

A virtual laboratory would be an alternative where students can conduct experiments and explore phenomena at any time and in safe environment conditions. Physics Education Technology (PhET) is one of interactive computer simulation that is free to access. The simulations provided by PhET are highly interactive which invites students to learn by exploring directly. PhET simulation creates an animated abstract fact or invisible phenomena to be modeled such as atoms, electrons, photons, and magnetic fields. (Prima et al., 2018) Apart from improving the achievement scores of STEM 12 learners, developing a positive attitude towards the subject is also the concern of this study. According to Guido (2018), students who have a negative attitude towards physics have lack of motivation for class engagement, and also the students who have positive attitudes towards physics are motivated for class engagement. Furthermore, teaching science must not only engage the cognitive faculties of the students but also engages their affective qualities which has an important role in improving their attitudes towards the subject and in enhancing the motivation to learn (Astalini et al., 2018).

2 Innovation, Intervention, and Strategy

This study utilized Phet Simulation in addition to the modular approach in improving the achievement scores and attitudes towards General Physics 1. Virtual laboratories offer students the opportunity to achieve the learning objectives in the comforts of their homes since they can't perform actual laboratory set-up. According to Weiman et.al., virtual laboratories provide a visual context for numerous abstract concepts and provide notable visualization and graphical analysis abilities. Physics Education Technology (PhET) as a virtual lab allows selected STEM 12 students to access interactive simulation pertaining to their lessons. PhET is a site that provides simulations of Physics and other sciences for free and packaged in a game-like form that makes it easier for students to explore (Faour et al., 2018; Wieman et al., 2008). Identified students in the experimental group were asked to download a Virtual Practical app in Google Play where free Phet Simulation can be accessed.

3 Action Research Questions

This action research investigated the effect of using Phet Simulation as a virtual lab on STEM 12 students' achievement score and their attitudes towards Physic. Specifically, this study answered the following questions:

1. Does the use of Phet simulation app affect the achievement scores among STEM12 students?
 - i. Is there significant difference in the mean scores of achievement tests in the pre-test of both experimental and control group?
 - ii. Is there significant difference in the mean scores of achievement tests in the pre and post-test of both experimental and control group?
 - iii. Is there significant difference in the mean scores of achievement tests in the post-test of experimental and control groups?

- 2 Does the use of Phet simulation app produce positive attitudes towards Physics?
- i. Is there significant difference in the mean score of PAS in the pretest of both experimental and control group?
 - ii. Is there significant difference in the mean score of PAS in the pre and post-test of both experimental and control group?
 - iii. Is there significant difference in the mean scores of PAS in the post-test of experimental and control groups?

4 Action Research Methods

4.1 Participants and/or Other Data Source of Information

The research participants of this study were sixty-six (STEM) students which is made up of 30 male and 36 female learners. General Physics 1 is one of the specialized subjects offered in grade 12 STEM strand for 1st semester. All participants are members of the class group chat where all the information is posted for their guidance. Administering the achievement test and PAS tool was done thru Google Form

4.2 Data Gathering Methods

This study utilized a quantitative experimental pretest versus posttest control-group design (table 1) in which students were assigned into experimental and control groups. The two groups were given a pretest before the implementation of the study and then post-test after the treatment was administered.

Table 1. The experimental design of the study

Control group	O ₁	O ₂	T ₁	O ₃	O ₄
Experimental group	O ₁	O ₂	T ₂	O ₃	O ₄

In this study, the independent variable was the different learning method (modular with Phet Simulation versus modular learning alone). The dependent variables were the students' achievement scores and their attitudes towards physics.

4.3 Research Instruments

The instruments used in this research include an Achievement Test and the Physics Attitude Scale (PAS). 4.3.1 Achievement Test Based on the Most Essential Learning Competencies (MELC) of General Physics 1, Kinematics is divided into two modules namely Module 5: Projectile Motion and Module 6: Newton's Laws of Motion. The identified MELC are: i) describe the projectile motion along horizontal and vertical components; ii) calculate the range, time of flight and maximum height projectile; iii) define tangential velocity, tangential acceleration and centripetal acceleration and

radius of curvature; iv) define inertial frames of reference; v) identify action-reaction pairs v) apply Newtons' Laws in word problems and vi) differentiate the properties of static friction and kinetic friction. An achievement test was formulated covering the said competencies.

The Physics Attitude Scale (PAS)

Physics Attitude Scale or PAS was used to measure students' attitude towards physics. This scale was adapted from the modified Fennema-Sherman attitude scale (Astalini et al., 2018). Participants answered 30 items statements on a 5-point Likert scale. PAS aimed to measure the self-confidence to learn and to achieve well on physics tasks as well as beliefs about the usefulness of physics.

5 Results and Discussion

5.1 Results Related to Research Question 1

Figure 1 shows the mean scores of each group, experimental group (A) and control group (B) on the pre-test and post-test as well as the improvement score.

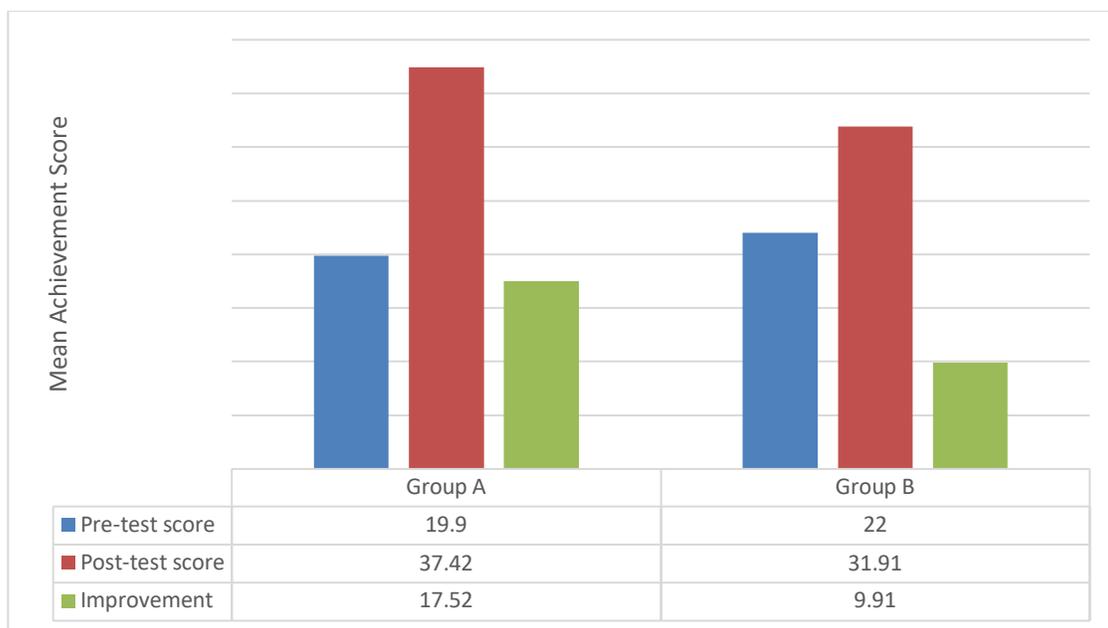


Figure 1. Mean scores of pre and post achievement test

To answer the first question, an independent T-test was computed on the pretest scores of the achievement test. The result in figure 2 showed that there was no significant difference between two mean scores of the two groups ($p = 0.750$) which means that the two groups do not differentiate at the beginning of the study.

The means of are not significantly different at $p < 0.05$.

Summary		
	Group 1	Group 2
Mean	19.9091	22
Variance	66.9311	37.2727
Stand. Dev.	8.1811	6.1051
n	33	33
t	-1.1767	
d.o.f	64	
critical value	2	
 t < critical value	=>	no sig. diff.

Figure 2. Independent samples t-test comparing groups' achievement pre-test scores

To test whether the use of Phet Simulation in modular leaning and modular leaning alone affect the achievement score of the learners, a comparison between the pre and the post-test score was done on each group. In Figure 2 and 3, a paired T-test was computed to compare the pre and post-test for the experimental group ($p=0.001$) and for the control group ($p= 0.001$). It showed that there is a significant difference in the scores on the pre and post-test for both groups.

Summary		
	Group 1	Group 2
Mean	19.9091	37.4242
Variance	66.9311	32.7291
Stand. Dev.	8.1811	5.7209
n	33	33
t	-17.1774	
d.o.f	32	
critical value	3.622	
 t > critical value	=>	there is sig. diff.

Figure 3. Paired t-test on achievement pre and post-test score of Group A (experimental group)

Summary		
	Group 1	Group 2
Mean	22	31.9091
Variance	37.2727	57.1129
Stand. Dev.	6.1051	7.5573
n	33	33
t		-9.0528
d.o.f		32
critical value		3.622
 t > critical value	=>	there is sig. diff.

Figure 4. Paired t-test on achievement pre and post-test score of Group B (control group)

In order to compare the achievement scores of the learners in the experimental group to that in the control group, an independent T-test of post-test scores was computed. A significant difference was found between the scores of both groups ($p = 0.001$) as shown on Figure 4.

The means of Group 1 and Group 2 are significantly different at $p < 0.001$.

Summary		
	Group 1	Group 2
Mean	37.4242	31.9091
Variance	32.7291	57.1129
Stand. Dev.	5.7209	7.5573
n	33	33
t		3.3425
d.o.f		64
critical value		3.232
t > critical value	=>	there is sig. diff.

Figure 5. Independent samples t-test comparing groups' achievement post-test scores

Analysis of the data revealed that students of the experimental group that are using Phet simulation together with modular learning performed significantly better than those of the control group who are into modular learning alone. Integrating simulation in Physics greatly helps students in visualizing concepts which cannot be offered in modular

modality. Since students are confined from their homes and cannot access laboratory apparatus, virtual lab such as Phet simulation proved to be an excellent alternative in this time of pandemic. Studies of Faour, M.A. et al (2018), Suporwoko, C. et al (2017), Kuhn, J. et al (2013) also confirm on the advantages of using of smartphones as a tool for students to perform simulation that will deepen their conceptual understanding on science concepts

5.1 Results Related to Research Question 2

Figure 6 displays, for each of the two groups, experimental group (A) and control group (B), the mean of total score of PAS of the pre-test and post-test as well as the improvement score.

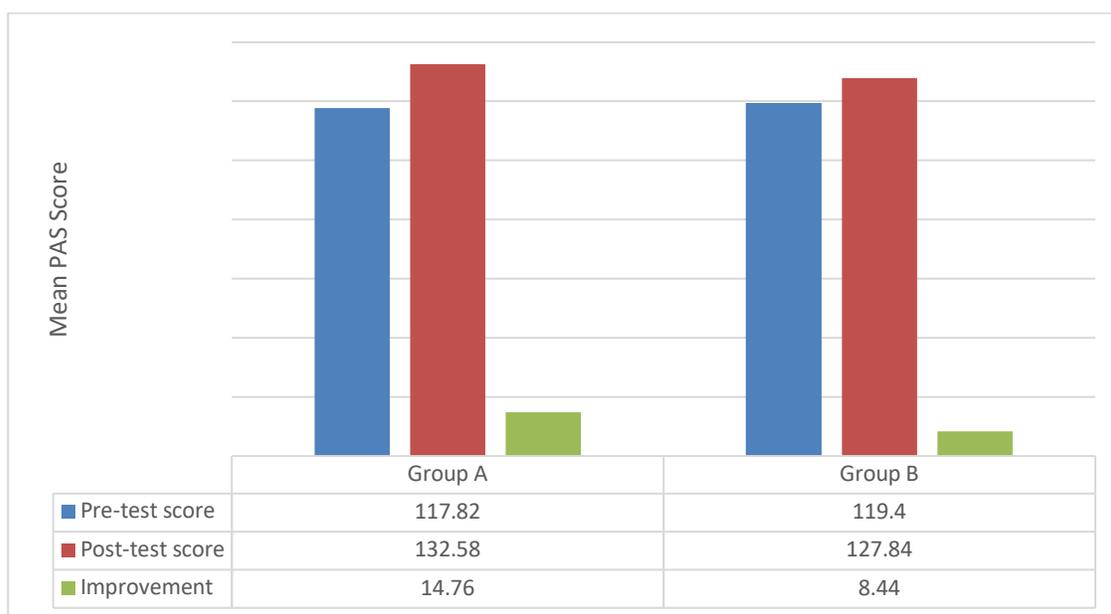


Figure 7. Mean scores of pre and post PAS

An independent T-test was conducted to compare the PAS pre-test mean score for the two groups. The result in Figure 8, displayed that there is no significant difference between the two mean scores ($p= 0.750$) which means that the two groups did not differentiate in terms of attitude towards Physics before the implementation of the study.

The means of Group 1 and Group 2 are not significantly different at $p < 0.05$.

Summary		
	Group 1	Group 2
Mean	117.8182	119.3636
Variance	56.3912	43.0799
Stand. Dev.	7.5094	6.5635
n	33	33
t		-0.8902
d.o.f		64
critical value		1.671
t < critical value => no sig. diff.		

Figure 8. Independent samples t-test comparing groups' PAS pre-test scores

To determine whether the use of Phet Simulation in modular leaning and modular leaning alone affect the PAS score of the learners, a comparison between the pre and the post-test score was done on each group. In Figure 9 and 10, a paired T-test was computed to compare the pre and post-test for the experimental group ($p=0.001$) and for the control group ($p= 0.001$). It showed that there is a significant difference in the PAS scores on the pre and post-test for both groups

Summary		
	Group 1	Group 2
Mean	117.8182	132.5758
Variance	56.3912	37.2746
Stand. Dev.	7.5094	6.1053
n	33	33
t		-11
d.o.f		32
critical value		3.622
t > critical value => there is sig. diff.		

Figure 9. Paired t-test on PAS pre and post-test score of Group A (experimental group)

Summary		
	Group 1	Group 2
Mean	119.3636	127.8485
Variance	43.0799	70.371
Stand. Dev.	6.5635	8.3887
n	33	33
t	-5.6543	
d.o.f	32	
critical value	3.622	
t > critical value	=>	there is sig. diff.

Figure 10. Paired t-test on achievement pre and post-test score of Group B (control group)

In order to compare the PAS scores of the learners in the experimental group to that in the control group, an independent T-test on the scores of PAS post-test scores was computed. As shown, in Figure 11, PAS post test scores of both groups did not present significant difference ($p = 0.001$).

The means of Group 1 and Group 2 are not significantly different at $p < 0.001$.

Summary		
	Group 1	Group 2
Mean	132.5758	127.8485
Variance	37.2746	70.371
Stand. Dev.	6.1053	8.3887
n	33	33
t	2.6174	
d.o.f	64	
critical value	3.232	
t < critical value	=>	no sig. diff.

Figure 11. Independent samples t-test comparing groups' PAS post-test scores

Analysis of PAS score revealed that the attitudes of both the experimental and control group significantly improved after the implementation of modular learning. However, when comparing for the PAS post score of the two groups they do not differentiate regarding their attitude after the implementation of the study meaning both groups have comparable increases in students' attitudes towards the subject. This finding is similar to the study of Faour, M.A. et al (2018), Guido (2013) and Astalini, D. et al (2018), where attitudes towards Physics have improved and positively influenced when compared to traditional learning.

6 Conclusion

The analysis of the gathered data clearly presents that after 6 weeks of treatment, students significantly improved their achievement score in both experimental and control groups. Further, the achievement scores of students using Phet simulation with modular learning after the implementation of the intervention was better than those students who are on modular learning alone. Regarding the attitudes towards Physics, both groups have comparably improved after the intervention. Thus, integrating Phet Simulation to modular learning enhances students' understanding and promotes positive attitudes towards the subject.

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Physics in the Context of Classical Ballet towards the Development of Lesson Guides for Special Program for the Arts Learners

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Abstract. This study attempted to develop contextualized lesson guides on Physics' selected topics, based on classical ballet routines in teaching Physics to Special Program for the Arts learners. It sought to answer what Physics concepts incorporated on different classical ballet routines can be used in developing contextualized lesson guides. The lesson guides' validity in terms of objectives, instruction to learners, learning activities, and evaluation measures were measured. Learners' assessment of the lessons conducted in terms of effectiveness was determined. This study used a developmental research design. Three (3) researcher-made instruments were validated and utilized. One was used to gather data among the dancers and ballet teachers. Another was for learners' assessments of the lessons conducted to them, and the other one was used by three physics teachers to evaluate the lesson guides. The SPA class was purposely selected as subjects. Their assessments were gathered and tallied. Three lesson guides were validated and administered in an SPA in a public high school. These lesson guides were evaluated by selected Physics teachers. Results for all categories were "very valid". Furthermore, the overall rating of each lesson guides "very valid". Results revealed that learners' assessment of the three lessons were very effective. This suggested that lessons in Physics can be contextualized using ballet routines because learners tend to focus on things they can relate to. Hence, it's recommended that Science education utilize and maximize the areas of interest of the learners. Utilizing contextualized lesson guides may also enrich the learners' knowledge that leads to meaningful learning.

Keywords: Science, Physics, developmental , contextualized lesson guides

Introduction of the Study

Dancing is one of the most technical, disciplined, and beautiful forms of art. Ballet is the foundation of all dances. Ballet teaches self-discipline, correct body placement, strength, and gracefulness. It is a unique art form that lets one express their feelings and use their bodies' capabilities to the full extent. In order to use their body and withhold their own kinesphere, the fundamentals of mechanical physics are needed to ensure that the art form is an amazing one (Dodge, 1997).

Dance, and in particular ballet, connects to a multitude of disciplines, spanning the curriculum. There is math in working music, choreography, and pattern of movement. There are language arts and storytelling in the performance of work. There are histories and social connections in the historical context in which works were created, focusing on composers and famous dances of the past. Physics and dance represent remarkably complementary approaches to human body movement – the scientific approach of classical mechanics and the aesthetic approach of the popular art form of dance (Charleston Ballet, 2019). People involved with dance, those with some familiarity with science, and those unfamiliar with both topics can find intriguing and challenging food for thought. The kinesthetic experience enhances student understanding and gives participants an accurate glimpse of the scientific process (Barber and Popalisky, 2008).

A growing number of studies show that most students' interest and achievement in math, science, and language improve dramatically when they are helped to make connections between new knowledge and experiences they had, or with other knowledge, they have already mastered (Shea and Morgan, 1979).

To cater to learners' diverse intelligence, the Department of education had made various programs, aside from the regular class, for the learners to deepen their learning towards their chosen field. One of these programs is the Special Program for the Arts. Special Program for the Arts is a program made by the Department of Education in the Philippines to give talented learners a chance to enhance their talents in different fields of the arts. There are five major fields in the SPA: creative writing (English and Filipino), visual arts, theatre arts, visual music, instrumental music, dance, and media arts. This is a nationwide program for learners with potentials or talents in the arts. One pilot school in every region was selected and implemented this program.

In teaching Physical Sciences, a significant challenge lies in the students' tendency to consider the scientific world and the "real" world as separate (Barber and Popalisky, 2008). This study personalizes the physics of motion by making each learner the object. Through this approach, the students are given scientific concepts to solve and understand and personal involvement to experience forces and motion. This combination gives an extension that interfaces science to the real world.

The ADDIE Model was used in this research. This model is an approach that helps instructional designers to create efficient, effective teaching design. The systematic process is represented in acronym ADDIE, which stand for the important components in the process of creating the instructional design, which are Analysis, Design, Development, Implementation and Evaluation (Aldoobie, 2015)

The paradigm of the study is shown in Figure 1.

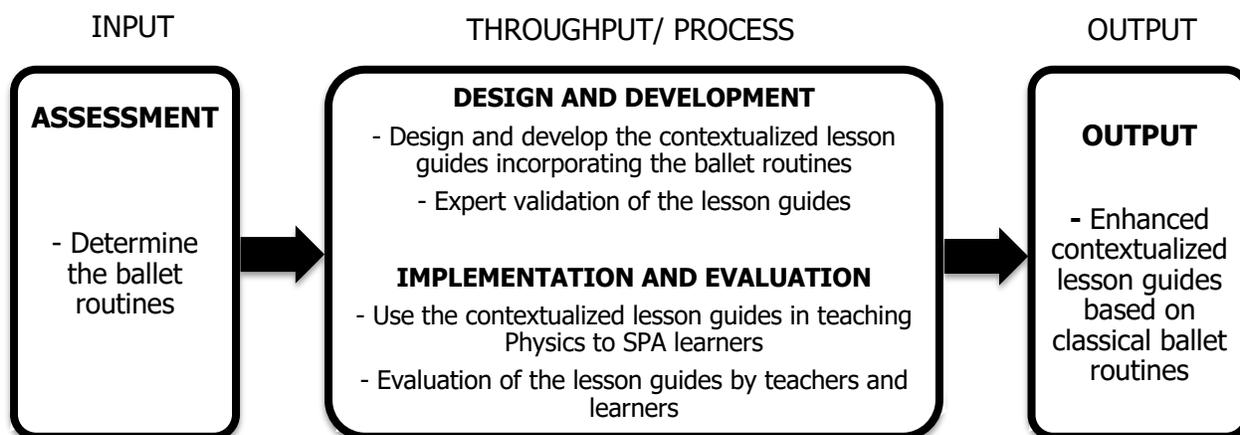


Figure 1. The paradigm of the study using the IPO (Input – Process – Output) Approach

Research Questions

This study attempted to develop and use contextualized lesson guides for Science teachers on selected topics in Physics based on the classical ballet routines in teaching learners in the Special Program for the Arts.

Specifically, it sought to answer the following questions:

1. What are the Physics concepts incorporated on the different classical ballet routines that can be used in developing contextualized lesson guides in Physics for Special Program for the Arts learners?
2. Are the contextualized lesson guides valid in terms of a.) Objectives, b.) Instruction to learners, c.) Learning activities, d.) Evaluative measures?
3. How do the learners assess the effectivity of the lesson conducted to them using the contextualized lesson guides?

2 Methodology

Design of the study

This study sought to develop contextualized lesson guides based on classical ballet routines. Developmental research design was used in this study. The contextualized lesson guides of this study have undergone five (5) the stages outlined in the ADDIE model, as follows: Assessment, Design, Development, Implementation and Evaluation Stages, in which the participants were chosen using convenient sampling. This study was conducted within the duration of 4 months. Convenient sampling method was used in selecting ballet dancers, masters and mistresses who were interviewed using the interview

guide/ protocol. They were also observed while executing the ballet routines which were recorded using a mobile camera in their respective dance schools.

After the routines had been obtained, these were analyzed to identify the Physics concepts related to them. Consequently, three (3) contextualized lesson guides in Physics with the topics in Law of Inertia, Projectile Motion, and Angular Momentum were made based on the classical ballet routines that were observed. Four (4) expert validators were asked to validate these contextualized lesson guides. These underwent face and content validity. They used the Validators' Assessment Tool in validating the contextualized lesson guides to measure the validity of the contents.

In addition, a focus-grouped discussion (FGD) among ballet masters and mistresses and Physics teachers was conducted, during which the contextualized lesson guides were critiqued and improvements and suggestion were discussed. The lesson guides were revised based on the suggestions of the experts. The three (3) contextualized lesson guides were then implemented/ pilot-tested to Grade 10 Special Program for the Arts learners. Communication letters were provided to the school where the pilot-testing was conducted. Teachers-in-charge and learners involved in the study were provided letters informing them of their participation in the study. Three (3) teachers pilot-tested the three contextualized lesson guides with the topics on Law of Inertia, Projectile Motion, Angular Momentum. After which, the learners evaluated the effectiveness of the lessons presented to them using the contextualized lesson guides. The instrument Evaluation Tool for Learners was used for this purpose. The comments of the Physics teachers who implemented the lesson guides were also sought.

RESULTS

Physics Concepts Incorporated with Classical Ballet Routines

Physics is stereotyped by learners as a difficult subject. One must be good at critical thinking and mathematical processes to excel in it. Despite being stereotyped as a challenging subject, there are other ways that a subject can be taught to the learners, not only through a plain classroom discussion. Classroom activities and experiments can be maximized by using techniques with which the learners are much familiar with.

Dance consists of movements of the body interspersed with motionless poses. In particular, classical ballet exhibits movements that may be incorporated with Physics, particularly the center of gravity, balance, rotational mechanics, conservation of momentum, friction, and Projectile Motion. Three (3) topics in Physics, which are based on classical ballet routines, were considered in developing contextualized lesson guides in Physics for Special Program for the Arts (SPA) learners.

Table 1
Physics topics that are incorporated in ballet routines

Physics Topics	Ballet Routines
Law of Inertia	<i>Arabesque</i> (a-RUH-besk) <i>Glissade</i> (gli-sad) <i>Pique</i> (pee-KAY)
Projectile Motion	<i>Grande Jete en Avant</i> (grahn-zhu-TAY ah na VAHN) <i>Pas de Chat</i> (gran pah duh shah)
Angular Momentum	<i>Pirouette</i> (peer-WET) <i>Fouette</i> (fwehTAY)

Table 1 shows the Physics topics and the classical ballet routines that were utilized. The Law of Inertia is used in classical ballet routines like *Arabesque*, *Glissade* and *Pique*. The Projectile Motion is utilized in *Grande Jete en Avant*, *Pas de Chat* to explain the topic clearly. For the Angular Momentum, classical ballet routines such as *fouette* and *pirouette* were executed to explain the topic.

The validity of each of the three (3) contextualized lesson guides based on classical ballet routines were validated by four (4) experts in terms of Objectives, Instruction to Learners, Learning Activities, and Evaluative Measures. The results of the validation of the lesson guides on Law of Inertia, Projectile Motion, and Angular Momentum are shown in table 3, 4 and 5, respectively.

The results implied that the most valid part of the lesson guide on The Law of Inertia is the Learning Activities which require the learners to execute classical ballet routines such as *arabesque*, *glissade*, and *pique* which all apply Newton's First Law of Motion (Law of Inertia).

Table 2

Validity of the Contextualized Lesson Guides on the Law of Inertia in terms of Objectives, Instruction to Learners, Learning Activities, and Evaluative Measures

Category	n	SD	Mean	Descriptive Rating
Objectives	4	0.60	3.45	very valid
Instruction to Learners	4	0.47	3.70	very valid
Learning Activities	4	0.44	3.75	very valid
Evaluative Measures	4	0.51	3.45	very valid

Over-all	4	0.52	3.59	very valid
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Scale: 1.00-2.00 – Barely Valid; 2:01-3:00 – Moderately Valid; 3:01-4:00 – Very Valid

The learning activities that require learners to perform or execute such classical ballet routines such as *grande jete en avant* and *pas de chat* that apply the concept of Projectile Motion viewed as the most valid part of the lesson guide.

Table 3

Validity of the Contextualized Lesson Guides on Projectile Motion in terms of Objectives, Instruction to Learners, Learning Activities, and Evaluative Measures

Category	n	SD	Mean	Descriptive Rating
Objectives	4	0.72	3.25	very valid
Instruction to Learners	4	0.50	3.40	very valid
Learning Activities	4	0.51	3.55	very valid
Evaluative Measures	4	0.50	3.40	very valid
Over-all	4	0.56	3.40	very valid

Scale: 1.00-2.00 – Barely Valid; 2:01-3:00 – Moderately Valid; 3:01-4:00 – Very Valid

Table 4

Validity of the Contextualized Lesson Guides on Angular Momentum in terms of Objectives, Instruction to Learners, Learning Activities, and Evaluative Measures

Category	n	SD	Mean	Descriptive Rating
Objectives	4	0.67	3.15	very valid
Instruction to Learners	4	0.60	3.55	very valid
Learning Activities	4	0.76	3.45	very valid
Evaluative Measures	4	0.60	3.55	very valid
Over-all	4	0.66	3.43	very valid

Scale: 1.00-2.00 – Barely Valid; 2:01-3:00 – Moderately Valid; 3:01-4:00 – Very Valid

In totality, the three (3) contextualized lesson guides were found to be very valid and in terms of the four (4) parameters. Hence, no revisions were made on them.

All three contextualized lesson guides were implemented in the classes of Special Program for the Arts Learners. Table 6 reflects the evaluation of the learners of the lesson as presented to them.

Results show that the learners found the lessons in the three (3) lesson guides to be very effective, specifically, for the Law of Inertia ($M=3.28$, $SD=0.67$), Projectile Motion ($M=3.24$, $SD=0.19$), and Angular Momentum ($M=3.37$, $SD=0.43$).

This goes to show that the contextualized lesson guides based on classical ballet routines also appealed to the learners as they found it to be “very effective”.

Table 5
Learners' Evaluation of the Lesson on the Contextualized Lesson Guides Based on Classical Ballet Routines

Topic	SD	Mean	Descriptive Rating
Law of Inertia	0.67	3.28	Very Effective
Projectile Motion	0.19	3.24	Very Effective
Angular Momentum	0.34	3.37	Very Effective

Scale: 1.00-2.00 – Barely Effective; 2:01-3:00 – Moderately Effective; 3:01-4:00 – Very Effective

Conclusions

The lessons in Physics for Special Program for the Arts learners can be contextualized from the ballet routines they are performing or learning because they involve the things they are familiar with. They would most likely focus their attention on what they are interested in. Since these learners are from the Special Program for the Arts majoring in dance, they utilized their kinaesthetic skills in learning topics in Physics. Learners used their past knowledge about ballet routines to understand the Physics topics being discussed. Their previous knowledge in ballet made them understand the topics in Physics and how these concepts will help them perform better in the future. This is because learners tend to learn better if what they are doing or performing are meaningful to them.

The contextualized lesson guides in Physics based on classical ballet routines are valid and appropriate for Special Program for the Arts learners. These lesson guides are tailored fit for them because these include classical ballet routines which they can relate to as they are performing these. Hence, they are very familiar with these routines since they have executed as part of their lessons since Grade 7.

Lessons that are tailored fit for the learners are effective and make learning easy for them and, at the same time, make teaching easy for the teachers. When learners are exposed to hands-on activities, they tend to retain what they have learned during the activity rather than just plain lectures. When learning is anchored with direct experience, the learners become engaged in the topic, therefore, gain knowledge.

Recommendations

The curriculum planner with the help of the Department of Education may review and strengthen the curriculum in science, specifically in the Special Program for the Arts, in order to help teachers improve their teaching strategies and may use the results of this study in creating programs and activities especially in establishing facilities for Special Program for the Arts learners that may help them understand Physics while enjoying their field of choice. It would be more helpful to learners and teachers if school administrators can provide enough facilities that would contribute for better academic performance of learners. The Science teachers handling SPA learners can be encouraged to make use of the contextualized learning guides to improve the performance and concepts of the learners in science. The teacher can also have strategies that would motivate and maintain learner's participation and enthusiasm about the subject during classes.

Parents take part in their children's learning by encouraging them to explore further, such as their talent in dancing, and provide a supportive environment to help their children become more academically-inclined without sacrificing their artistic talents on the side light. Learners as well can be encouraged to take academic subjects more seriously. Learners can also be encouraged to explore their talent to help them understand science easily.

For other researchers, it is recommended that a similar study be conducted in using other dance styles, like dance sports, contemporary, etc., to develop contextualized lessons that will suit the SPA learners dance style. They may also make modules on how to discuss Physics concepts using different genres.

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Gamified Track-Based Remote Instruction: Examining Learners' Perception Towards Its Use And Impact On Mathematics Competence In Dolores National High School

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Abstract. Ever since, teaching mathematics concerns difficulties, misconceptions, and challenges all wrapped into one, which pushed teachers for a personalized and direct instructional approach. In this new normal, the use of digitalized instruction and learning tools justify the continuity of education in any learning environment. Hence, a study was derived to examine the impact of a gamified track-based remote instruction on the level of competence of learners taking up Agri-Fishery and Home Economics strands in the Dolores National High School during the school year 2020-2021. An exploratory sequential mixed method following Plan-Do-Act model of action research was undertaken, thereby collecting data including respondents' perceptions on the use of the proposed tool via focus group discussion during the piloting phase, assessment of learning gains during the quasi-experimental phase, and the determination of its impact on the respondents' competence level using the identified four factors embedded on the extended TAM survey questionnaire. Findings showed that the use of a gamified tracked-based remote instruction enhanced the competency level of the two groups of respondents. Also, out of the four factors, only self-efficacy was found to insignificantly predict respondents' level of mathematics competence. The findings provide a deep understanding on the importance of teaching mathematical concepts considering learners' competence and preference. A similar study can be implemented in other subject areas to maximize its use in the future.

Keywords: Gamified, Senior High School Tracks, Competency level, Remote instruction

I. CONTEXT AND RATIONALE

Mathematics applications in today's world are of great importance with regards to science, technology, communication, and other fields (Dowling et al., 2001). In the rapidly changing world brought about by the global pandemic, the demands for competencies and mastery of core contents cannot be discounted. Dahar (2011) opined that Mathematics Education has always faced challenges as a great number of learners complained of the difficulties in the subject and that of students' laziness. As a matter of fact, Salveijo and his colleagues (2014) revealed that several learners fail in completing requirements, thereby getting low performances in both academics and

logical reasoning skills especially in disciplines like mathematics and sciences. The latest PISA results revealed that the Philippines scored 353 in mathematics, ranking below the average achievement of participating Organization for Economic Co-operation and Development countries (MoconCiriaco, 2019). In addition, the 2003 Trends in International Mathematics and Science Study (TIMSS), Filipino students' mathematics performance belongs to the bottom 11%, better compared to 1999 results (Mullis et al., 2004). The poor performance in mathematics is of global concern attributed to many factors such as mastery of basic skills, time management, and attitude towards mathematics (Suan, 2014) and promoting students without achieving competencies needed for the level (Shahrill et al., 2015). The lack of mastery and learning among students on some learning competencies contributed to poor performance during National Achievement Tests and other related assessments (Linog, Lahoylahoy, & Alguno, 2013). The declining performance of Filipino students in mathematics triggered the need to overhaul the Philippines educational systems.

Continuity in education is a vital aspect that needs proper planning and implementation to meet the needs of a rapidly shifting and unpredictable global society. Telles-Langdon (2020) described the rapid change in the dynamics of the present educational system as an eyeopener among educators worldwide to defer themselves from the usual "sage on the stage approach" and give more focus on available technology-based infrastructure and digitalized approaches to instruction. True enough, the year 2020 forced almost all education sectors across the globe to equip and build teachers' capability in the use of technology to encounter acceptance, sustainability, and scalability challenges. The United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2019) suggested that teachers must implement a student-centered model of instruction and appreciate differentiated curriculum, instruction, and assessment paradigms.

It is observed in the proponents' classrooms that a number of students experiencing difficulty in performing operations on algebraic expressions since the topic require learners' full understanding of the principles regarding algebraic expressions and the rules in multiplying like and unlike terms. Moreover, the said competency is consistently declared as least mastered for three years now. It is imperative to look for innovative approaches accompanied by learning tools in order to provide needed interventions for meaningful learning. Hence, the cyclical process of action research was deemed necessary and appropriate in addressing the current learning gaps. The present research employed a mixture of qualitative-developmental, quasi-experimental and evaluative approaches in research to magnify the impact of an intervention program in improving the respondents' level of competence via a track-based remote learning approach through the use of PowerPoint features of a mobile learning application. The said intervention was conducted among Grade 11 TVL Home Economics (HE) and Agri-Fishery (AF) classes in Dolores National High School during the first semester of the school year 2020-2021

II. PROPOSED INTERVENTION AND STRATEGY

This project was developed on the construct that every lesson should be delivered easily, but meaningfully. Henceforth, the proponents, propose gamified track-based

mathematics instruction as a tool in assisting students to gain competence in understanding functions. The said intervention material is a PowerPoint-based instructional tool through the use of hyperlinks, animations, and contextualized activities modified in such a way that the learners will get to have a hands-on experience in solving a problem involving functions aided by QR code-based key cards. The gamified track-based cum remote learning instruction is made up of five different learning worksheets embedded in PowerPoint material, which are suited for senior high school learning, specifically to the Home economics and Agri-fishery sections.

The researcher-developed intervention tool was composed of; (1) a pretest assessment area (named Prepare me), (2) an activity learning area (named Let's do it!), (3) Key ideas (named Let's wrap it up!), (4) Posttest area (named Assess what you know), Enrichment area (Challenge yourself) all in one module. The pretest assessment area contains a QR code-based self-check assessment which aims to provide a general overview of the lesson, paired with a substantial explanation. The activity learning area, situate learners in various problematic settings that will engage their critical thinking skills. The key ideas area consists of summarized concepts. The posttest assessment area measures the mastery learning gained by the students using an interactive learning approach.

III. ACTION RESEARCH QUESTIONS

1. What are the perceptions of learners after the use of a gamified track-based remote instruction in mathematics?
2. What is the respondents' level of competence before and after the use of a gamified track-based remote instruction in mathematics?
3. Is there a significant difference between the learning gain scores of students exposed to a gamified track-based remote instruction in mathematics?
4. Which of the factors on the use of a gamified track-based remote instruction in mathematics predict respondents' level of competence?

IV. ACTION RESEARCH METHODS

V. Participant and/or the Source of Data and Information

In this quasi-experimental study, Grade 11 students of Dolores National High School who are enrolled in the Home Economics (HE) strand, under the Technical, Livelihood Track were specifically chosen as the respondents of the study. Two sections were selected to participate in this study in determining their level of competence using gamified track-based remote instruction in mathematics. A total of 28 students in Grade 11 TVL HE and 30 students in Grade 11 TVL AF. Originally there were 30 participants from the TVL-HE but two of them back-out and dropped from classes due to early pregnancies. The researcher selected them based on their final grade in their 10th Grade Simple Mathematics, with greater chances of being chosen among beginning (74% and below) and developing (75-79) level of academic performance, and performance in the first self-learning module in General Mathematics for the School Year 2020-2021.

For ethical consideration, the confidentiality of the research outputs was placed in anonymity, and that the respondents were informed on the purpose of the data gathering. The giving of rewards was employed to avoid instances where students will withdraw from the conduct of the research and that no force was made to compel them to participate.

VI. Data Gathering Methods

Prior to the experimentation, the material was pilot tested among ten students from a non-participating class. The said activity underwent a focus group discussion to identify factors that affect learners' understanding of the mathematical concepts using the proposed innovation. Likewise, themes and responses were added to the existing data on the Technology Acceptance Model.

After finalizing the material, the quasi-experiment started from August 25 up to September 26, 2020. A pretest was administered to identify learners' level of competence regarding the least mastered competencies in the subject, General Mathematics. Since this study aims to validate the effectiveness of the material, the pretest result served as a diagnostic representation of the two groups. Moreover, the said instrument was used for the posttest assessment.

As mentioned earlier, two classes in Grade 11 were utilized as respondents of the study, which were both exposed to a gamified and track-based mathematics instruction provided with a load card and USB flash drive. Due to the lack of face to face classes and health issues. The said intervention was purely driven by the concept of remote/distance learning, wherein teacher-researchers just standby and wait for a call from the student on problems and issues they are facing in the use of the learning materials. After the conduct of experimentation, the respondents were made to answer a 20 item modified Technology Acceptance Model (TAM) survey questionnaire using google form. Participants informed consent was obtained before data collection, assuring that their anonymity and responses will be secured. Qualitative data collection made use of recorders, but the file was deleted after the transcription and data processing was completed.

VII. Data Analysis Plan

A thematic analysis was performed to analyze the qualitative data collected in Phase 1 (Pilot phase) following the five stages of qualitative data analysis developed by Ajjawi and Higgs (2007). In measuring the respondents' level of competence, the researchers used the Performances Indicators Rubrics adapted from the Department of Education Order No. 8 series 2015 as measurements on the learning competencies. Since this study followed a quasi-experimental design, the comparison of the two groups' learning gains was conducted using a t-test for independent samples. The data gathered from the survey was analyzed using the median due to the ordinal characteristic of the collected information. Finally, the researcher employed a multiple hierarchical linear regression to determine which factors significantly predict respondents' level of competence at 0.05 alpha value.

VIII. DISCUSSION OF RESULTS AND REFLECTIONS

IX. On learners’ perceptions on the use of gamified track-based remote instruction

The transcripts from the focus group discussion among ten participants were scrutinized to derive an objectified listing of their experiences during the pre-utilization phase of the PowerPoint-based tool. Furthermore, to be familiarized with the gathered data, significant statements were labelled thru transcript numbers and line numbers for proximate identification. The qualitative findings revealed five distinct and interesting themes, namely; “Ease of use”, “Technological quality”, “Enjoyment”, “Academic relief”, and “Improved attention span”.

Considering all the responses and the results of pilot testing of pre/post-test materials, the researcher adapts Weng et al. (2018) and Alharbi and Drew's (2014) Technology Acceptance Model (TAM) instrument with the inclusion of sub-themes derived from the qualitative portion of this study. Furthermore, the instrument has undergone expert-based content validity, and finally, exploratory factor analysis (overall alpha value of .8921). Hence a 20 item modified TAM based instrument was utilized focusing on; (1) perceived ease of use, (2) technological quality, (3) usefulness, and (4) self-efficacy.

X. Respondents’ level of competence before and after the use of a gamified track-based remote instruction in mathematics

As depicted in Table 1, both respondents from TVL Home economics (HE) and Agrifisheries (AF) achieved an almost similar pretest-based competence level of good. After being exposed to the Powerpoint-based gamified and track-based instruction, they both undergone posttest assessment. The data revealed that respondents from TVL HE moved from “Developing” and “Approaching proficiency” levels to “Proficient” and “Advanced” levels of mathematical competence, while 39% of the respondents from TVL-AF achieved the “Proficient” level and 36% garnered the highest level of competence. A similar result was observed in Sidabutar (2016) work on the use of various types of an innovative learning model for mathematics, whereby improved grade trends were observed among the three groups between their pretest and post-test scores. Also, Albaladejo et al. (2015) abstracted that the use of technology-based instruction can develop mathematical competencies at different degrees. Over-all the findings offer a promise of an evident-based solution to the increasing number of learners who are experiencing difficulties in mathematics.

Table 1. Respondents' level of competence before and after the use of a gamified track-based remote instruction

XI.	Competence	Pretest				Posttest			
		TVL-HE		TVL-AF		TVL-HE		TVL - AF level	
		F	%	F	%	F	%	f	%
	Advanced	0	0	0	0	8	29	10	36
	Proficient	0	0	0	0	20	71	11	39

Approaching proficiency	23	82	25	89	0	0	9	32
Developing	5	18	5	18	0	0	0	0

Legend: Developing (75-79), Approaching proficiency (80-84), Proficiency (85-89), Advanced (90 & above)

XII. Test of significant difference between the learning gain scores of students exposed to a gamified track-based remote instruction

Table 2 gives a summary of the results of the inferential statistics employed between the two groups of respondents in terms of learning gain score equivalent and the t-test result. The respondents from the TVL AF class acquired a higher learning gain result than TVL HE classes by around 8.69%. These results confirm that both groups of respondents who were exposed to a gamified and track-based instruction performed and achieved the necessary learning competence. Furthermore, the t-test analysis revealed a computed p-value higher than the expected level of significance set at .05, which signifies a not significant difference in learning gains between the two groups of students. Similarly, Simamora, Saragih, and Hasratuddin (2019) found no significant difference in learners' mathematical problem-solving ability between the experimental and control groups. These findings unveiled that employing a similar approach, that is through the use of a PowerPoint-based-gamified and track-based instruction through differences in content as it is track-centered enhances both the mathematical competence of the learners from the two classes.

Table 2. Test of significant difference between the learning gain scores of students exposed to a gamified and track-based mathematics instruction

Group	Mean Learning Gain	Standard Deviation	p-value	Decision	Interpretation
TVL – AF	64.94%	16.59%	0.1907	Retain	Not Significant
TVL – HE	56.25%	31.45%		H ₀	

$\alpha = .05$

XIII. Predicting respondents' level of competence through the use of a gamified track-based remote instruction in mathematics

Table 3 shows the result on the multiple hierarchical analysis employed on the TAM indicators namely; perceived ease of use, technological quality, usefulness, and self-efficacy. A very good and significant prediction was derived at 66.8%. Moreover, three out of the four TAM indicators were found to significantly predict the mathematical competence of the respondents to wit are perceived ease of use ($\beta = 6.879, p = 0.000$), technological quality ($\beta = 1.756, p = 0.022$), and usefulness ($\beta = 1.372, p = 0.040$). Interestingly, the result shows that an increase of perceived ease of use also increases the score by around 6.870, while a lower increase can be seen in terms of usefulness. On the other hand, self-efficacy was found to negatively affect the learners' mathematical

competence, though it is not statistically significant. Similarly, Bellini et al. (2019) 's findings on mathematical competence are aligned with the present study in regressing the capability of an instrument to enhance talents and numeracy skills. Over-all, the use of PowerPoint-based gamified and track-based instruction impacts the respondents' level of mathematical competence.

Table 3. Multiple hierarchical regression analysis on TAM indicators as predictors of learners' mathematical competence

Predictive Variables	B	p-value	Decision	Interpretation
Perceived Ease of use	6.870	.000	Retain H_0	Significant
Technological quality	1.756	.022	Retain H_0	Significant
Usefulness	1.372	.040	Retain H_0	Significant
Self-efficacy	-1.945	.079	Retain H_0	Not significant

Criterion variable: Score; $F(4, 25) = 12.575$, $R^2 = .668$ (66.8%); $p = .000$, $\alpha = 0.05$

In light of the findings of the study, the following conclusions are presented.

1. The qualitative results of the pilot-testing phase revealed the thematic perception of the respondents on the use of gamified track-based remote learning in terms of ease of use, technological quality, enjoyment, academic relief", and improved attention span.
2. The pretest assessment result showed that the respondents are in the approaching proficiency level of competence. After exposing the two groups to a gamified track-based remote learning approach, they were able to reach a proficient level of competence. Indeed the use of the said approach improves learners' level of competence.
3. There is no significant difference between the learning gain scores of the two groups. The said result shows that the gamified track-based remote learning approach can be used by students in all of the TechVoc tracks.
4. Among the four factors, self-efficacy was not found to be a significant predictor of respondents' competence level through the use of gamified track-based remote learning approach. The result in general shows that the use of the said approach effectively improves the mathematics competence of the learners.

Based on the conclusions of the study, it is recommended that;

1. The gamified track-based remote instruction should be implemented in other schools to confirm its effectiveness and to maximize its use in the future.
2. Conduct similar studies on the use of a gamified track-based remote instruction for remediation in other subject areas to confirm the result of the study.

XIV. ACTION PLAN

Program title: Catalyzing Educators towards Gamified 21st-century Instruction and Action Research

XV. Program of Activities

Date	Topic	Suggested strategies	Persons' involved	Expected output
January 15, 2020	Learning interventions in the time of pandemic	Brainstorming, workshop	School Head, ASP II, Researchers , Selected SHS participants	Reflection paper
January 22, 2020	Differentiated instruction and gamification in education in the 21 st century	Assessment of learning targets, presentation of outputs, Critiquing		Plan of actions
January 29, 2020	Use of PowerPoint Features in gamifying instruction	Presentation, workshop, critiquing		Gamified tool using PowerPoint features
February 5, 2020	The Cyclical Process of Action Research: An Introduction	Presentation, Brainstorming, Presentation of outputs, critiquing		Proposed action research

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Addressing students' dashboard toward modular learning: StatBot, micro-learning messenger-based chatbot

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Abstract. Student's dashboard is a researcher-made term to identify the current and previous situation of the students who are having their modular learning at home. To address the problem identified in the dashboard, a Probability and Statistics chatbot named StatBot was introduced to the class. It contains similar materials originated from the PIVOT 4A module placed in micro-learning environment. In micro-learning, the materials used in studying were minimized to tiny chunks which can be do within 10 minutes per lesson. This is practical action last for one and a half month. Nine out of twenty-four sections from Grade 11 students were the participants of this study selected using opportunity sampling. Multiple data collection methods were employed in the study like the semi-structured interview, output observation, open-ended questions in StatBot, and Facebook Messenger as rich sources of data. The study revealed that it is timely to use StatBot where the students can take the lesson and formative assessment anytime and anywhere. Although there is a positive side in teaching using this approach, still some negative situation arises which future researchers need to address.

Keywords: dashboard, Senior High School, Probability and Statistics, chatbot, messenger

1. Introduction

In the midst of a pandemic, every institution around the world suddenly stops, especially the education sector. In this connection, school started to find ways how to continue even the pandemic is present. Technologies for virtual communication become extensively used such as zoom and google meet. In line with this development in communication, artificial intelligence (AI) takes place such as Amazon Alexa, Google Assistant, Siri, and others. AIs are computers which can learn by themselves. Chatbot is also a part of the AI system. It is a natural language processing system which creates virtual conversation mimicking human interactions through audio or text (Nadarzynski, Miles, Cowie, & Ridge, 2019; Chen, Widarso, and Sutrisno, 2020; Wang, Li, Geng, Yang, & Leng, 2020). Chatbots are designed for specific functions, most of the time is to provide information (Nadarzynski et al., 2019). Modern chatbots are assigned in different fields such as education, as a source of information, for customer service, and as a tool for e-commerce (Croes & Antheunis, 2021). Chatbots are getting attention in education and it has proven effective in supporting learning in university (Yin, Goh, Yang and Xiaobin, 2020). Chen, et al. (2020)cited several chatbot for education such as English learning

chatbot BookBuddy, intelligent course tutor Sammy, MOOC collaborative chatbot colMOOC, and the academic information system chatbot StudBot. The characteristics of chatbot are accessible through mobile phones, has animated characters, easy to use and friendly, it is rapid and cost effective system, it should be seamlessly updated and enhanced, serves as personal coach, and have realistic and interactive interfaces (Griol & Callejas, 2013). There are two general categories for chatbot, the task-oriented and non-oriented chatbot (Yin et al, 2020). They explained that "the task-oriented chatbots are designed for a specific task and are set up to provide responses to user inquiries, such as booking flights, ordering food, responding to customer inquiries or learning a skill. The non-task oriented chatbots emulate a casual but interesting conversation with a person to perform creative or fun chit-chat for entertainment without reaching an informational target". Common criticism to chatbot is not capable of empathy and it can compromise the engagement to the users (Nadarzynski et al., 2019).

Educational chatbot should be built considering learning strategy to attain individualized support and user acceptance (Yin, Goh, Yang and Xiaobin, 2020). They said that it has a promising approach in education using micro-learning strategy. Micro-learning refers to a set of relatively small, focused learning units and learning activities that are usually completed in a short duration of 10 minutes that are accessible on multiple devices. This approach is learner-centered, easy to access, interactive, and well-designed features. The students should control their learning. According to Shail as cited in Yin et al. (2020), micro-learning delivers small snippets of information which mimics the way the learner's brain receives information and the short duration of micro-learning content reduces the cognitive fatigue resulting from longer lessons. As mentioned by Yin, et al (2020) in their study, research on chatbot-based micro-learning is still scarce, especially regarding learning motivation and learning performance of students in general. The pedagogical design of chatbot-based micro-learning systems have three learning phases: the absorbing phase, the acquiring phase and the constructing phase which will not be tackled in this study. The chatbot micro-learning system is designed with motivational dimensions to support self-learning.

Using students' dashboard where the students describe their current and previous experiences in modular learning, what are the common themes formed. Moreover, the research aims to identify the experiences and recommendations of the students using StatBot.

2. Methodology

The study utilized practical action research which considered the experiences of both teachers and students which is described qualitatively. Practical action research is a method for addressing a specific classroom, school or community problem (Fraenkel & Wallen, 2010). The researchers used Grade 11 Technical-Vocational Livelihood (TVL) students as the participants of the study using opportunity sampling approximately 68% of the population (231 out of 350 students).

The data were gathered by using Google Form, Facebook Messenger and manychat.com. The researchers obtain the status of the students through Google Form with the consent to the participants. Then they placed a Grade 11 PIVOT module using

manychat.com limiting the pre-test and post-test to 5 items. After a month an interview through messenger was conducted and an open-ended question followed. The researchers also considered the private messages of the students to clarify and validate the data gathered. Below shows how every lesson works in manychat.com. In each week there are 3 to 4 lessons which the students need to master at their own pace.

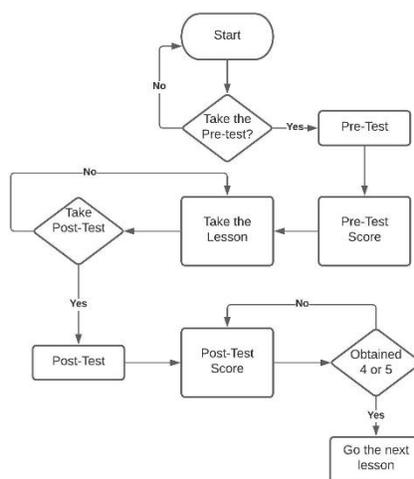


Figure 1: Flow Chart of the Lesson using Micro-Learning Principle

Qualitative data from observation, interview and reflection were analyzed through thematic analysis where the transcripts were written into papers and identification of related codes was done. Subsequently, the groupings of similar codes called a concept were finished (Krauss & Putra, 2005). Researchers read and reread the transcript using MaxQDA, highlighting the important words so that the codes were seen. The codes were collected to form themes. After the data analysis, member checking was considered by consulting the participants about the accuracy and completeness of their ideas included in this study. Suggestions from the participants were also considered to make this study more comprehensible.

3. Discussion

The experiences of the students before and during pandemic can be summarized using four points.

The impact of the pandemic varies from the point of the students. The students answered that their living changes and some say that nothing changes in their lives. The pandemic makes the family of the students to be financially challenged. They encounter financial difficulty during the pandemic but still they can survive. As one of the students stated that his father's salary went low while the expenses went high. Many heads of the family of the student lose their jobs during the pandemic so they depend on government subsidies and relief (the students called it relief goods). There are also some students started working to assist their parents/guardians for their living. The students need to adjust in this situation because they can not change the situation and in their language, they have "no choice". The students found it hard to separate the schooling from household chores

at home and sometimes it affects how the students do their modules. The students who are also working felt an energy drain within the day which sometimes they failed to comply with the requirements of their teacher. The StatBot was used to assist the students who took their jobs and for those assisting their family through household chores. They can also use the StatBot even if the student does not have a load.

Table 1: Students' dashboard and its significant difference

Indicators	Before Pandemic	After Pandemic
Family	5	3
Love*	4	5
Play	5	1
Friends	5	2
Health	5	5
* there is no significant difference using Sign Test		

Among the dashboard of the students, family, play, friends, and health shows a significant difference in terms of ranks of the students. While love for the family shows no significant difference using the sign test.

There are some students who are still positive with this situation and there are some who are not. According to the student, life goes on. They are hoping that sooner they can have a face-to-face class. They are still positive despite the tragedy that we encounter nowadays. On the other hand, we found negative feedback in this pandemic. One student mentioned that this pandemic ruined his life. Due to the limitations that we encountered in this pandemic time, we can still communicate through fb messenger. On this platform, the researcher placed StatBot.

Based on the interviews and answer of the students in open-ended question in dashboard, *the student found their home boring.* One of the students answered that he feels tired at home and it is easy to lose my energy because I can not do the things that I did before. This pandemic also changed the sleeping habits of the students and they felt tried with the household chores. For those who have their cell phone, they just use it for the whole day which drains their body's energy. The students also became more engage in virtual games using their cellphones. One of the students is admitted that he gave more time in playing virtual games than studying his module. He mentioned that he became more addict in online games during the pandemic. Another student explained that he wants to play more and the he shows less love to family and friends [as

indicated in the instrument (dashboard)]. They further explain that there is nothing at the house which they can be busy to.

The sleeping pattern of the students is also affected by the pandemic. Most of the students sleep late at night [most sleeping after midnight] and wake up late at noon the next day. As mentioned in the interview:

“The pandemic really affected my sleeping routines. I sleep late but I still get 8 hours of sleep, which I think is alright.”

One student said that she is sleeping by 3am in the morning, which is before the pandemic she slept from 9pm to 10pm. Several responses in the open-ended question tackled that before the pandemic they slept in the right time because they were excited to be in school but now they are awake in the evening and they are asleep in the morning. They also mentioned that schooling can consume the most energy that they have within the day, as a result, they can take a sleep early which is obviously not present in modular distance learning.

“I do the modules in the evening because I'm slept in the morning”

There are few who still wake up early, but they make sure that they will take an afternoon nap to gain their energy. The students can use the StatBot anytime and anywhere without chatting with the teacher late at night.

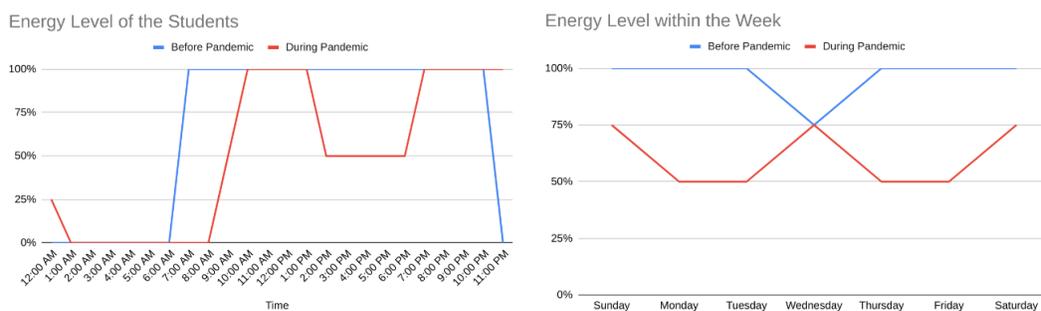


Figure 2: Energy Usage of the Students Before and During Pandemic

The students are learning using the printed modules provided by the Department of Education (DepEd). *The students admitted that the modules are difficult to understand and they said that they need to balance their time in answering the modules.* Another issue arises as the data gathering continues, we call it “needs vs module”.

The students found it difficult to do the modules which is most of the time it lowers their energy/passion to finish the task of the teacher. The questions in the module are difficult to answer in students' perspective especially the first quarter modules [provided by the

DepEd Regional Offices] but the 2nd quarter modules are less difficult than the first one. One student responded in the interview that he can not learn using the module, it just adds to his headache because he can not learn what he is doing. He added that it is just an activity occupying my time. It seems that his response was negative with the module. Based on this statement, the lessons for Probability and Statistics should be placed into tiny chunks of information where micro-learning principles can help.

According to the student, using the chatbot, the lesson is much easier because it is compiled the lesson that you need to learn. They just read and understand the lesson that it included in the bot. The only problem with this platform is that you need to use internet connection. It is better to read using the chat box in the messenger. There are students who can not access StatBot.

Table 2: Weekly Lesson and Percentage of Students who Access the Lessons

Weekly Lesson	% of Students who access the weekly lesson
Week 1	51%
Week 2	9%
Week 3	5%
Week 4	3%
Average	68%

The deteriorating effect of the bot is also visible in the table above.

4. Conclusion

In light of all the data, truly the StatBot is not perfect enough to address all the problems encountered in this pandemic time. The percentage of the students who accessed the bot is good but it is much better if at least 80% of the students can access it. In assessing the consumption of the students in the bot, a phase should be utilized although this paper is just an initial part of the overall study. May the future researchers may be able to use dialogflow from google for more diverse usage of the platform. This pandemic time is challenging enough, we should not limit ourselves in one platform. We should use multimodal approach in reaching out our students

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Facebook and Messenger Groups as Platforms for Delivering Mathematics Interventions in Modular Distance Learning

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Abstract. Students struggle to learn mathematics lessons independently under a modular distance learning modality based on summative tests and performance tasks' results from the first grading period using self-learning modules. So, interventions must be placed by using social media platforms preferred by most of the students to reach and help them. The study aimed to assess the utilization of Facebook and Messenger groups as platforms for delivering video lessons and activities, learning materials, administering the test, and answering queries of the students in Grade 9 Mathematics following the modified PDSA model. The study employed a practical action research design utilizing surveys, interviews, and test materials as data collection methods validated by master teachers and a head teacher. The pretest was administered before two months of interventions. After that, the posttest, survey, and interview were conducted. Based on the results, the pretest scores are statistically different from the post test scores. It means the interventions via Facebook and Messenger groups help students cope with modular distance learning challenges. As a result, students better understand the Mathematics lessons and enjoy learning at their own pace.

Keywords: Facebook, Mathematics interventions, Messenger, Modular distance learning

1 Introduction

Modular distance learning is the most implemented learning delivery modality for students in the Philippines in the new normal setting. Self-learning modules are given to the students quarterly to continue self-paced learning while staying at home. This modality pertains to individualized instruction wherein the student uses self-learning modules and other learning materials with less interaction with the teachers (DepEd Order No. 012 s. 2020). However, the teacher's responsibility under this modality is to monitor the student's progress. The student may ask the teacher for assistance in any means like email, text message, instant messaging, call, or even home visitation. Moreover, any family member or stakeholder in the community may be served as a para-teacher to assist the learning needs.

In modular distance learning, students are autonomous and agents to take charge of their learning individually. They develop a sense of responsibility since the tasks on the modules are self-paced. However, teachers must assess the student's learning needs, make appropriate interventions, and use available local resources in the form of online

(Labrado et al., 2020). Since self-paced learning does not guarantee the mastery of the most essential learning competencies (MELC) that the DepEd prescribes, teachers must find ways to reach the students and develop their capabilities of understanding the lesson in Mathematics.

It has been observed from the first quarter of the school year 2020-2021; students are struggling in learning the mathematics competencies in Grade 9, as seen on the result of the summative test and performance task. The mastery of the competencies is superficial, requiring interventions from the teachers to fully understand the mathematical concepts in every lesson. In addition, it means challenges arise on the students on how to learn mathematics concepts independently. Challenges like delayed distribution of modules, parents or guardians are incapable of helping the students learn mathematics lessons, limited examples and explanations on modules, and hard-to-understand mathematics concepts were elicited from the students' initial survey.

On the other hand, Facebook and Messenger are well-known social network sites used by many students daily (Kirschner & Karpinski, 2010; O'Brien, 2011). These have greater potentials for the teaching-learning process as a learning management system (Wang et al., 2011). Menon (2012) investigated the utilization of Facebook groups in medical education and found that Facebook groups are helpful to engage the students in learning that stimulates the student's creative thinking. Hence, it was supported by the study of Pellizzari (2012) that showed that Facebook groups improved the qualitative part of the mathematics performance of the students. Kurtz (2014) concluded that Facebook groups were considered safe platforms for the students' social learning and participation, an avenue for active interactions and contributions of the students with peers and teachers, and ways to reach the students.

Anggoro and Rueangrong (2020) conducted a study on Facebook as an alternative learning platform for online learning in the COVID-19 pandemic time. They concluded that this platform could be used as a reliable learning management system capable of sharing and storing different files, synchronous and asynchronous interaction, monitoring students' outputs, and giving feedback. In addition, this platform supports students' active learning (Akbari et al., 2016), thus making them more engaged.

Meanwhile, Facebook Messenger is mainly used by students rather than email or mobile phones during academic consultations due to its convenience to use (Tananuraksakul, 2018). It can be used as an online discussion platform to improve the students' responses to test performance (Farhan, 2019). The students have a positive attitude towards Facebook Messenger as a medium of academic discussion that positively affects body and mind with confidence, convenience, less travel time, and saving money (Tananuraksakul, 2018). Messenger's instant messaging feature makes this application advantageous with other online platforms even without an internet connection.

Related works of literature have been conducted regarding the utilization of Facebook and Messenger concerning the students' academic performance (Wang et al., 2011) before the pandemic. However, no study has been conducted on utilizing Facebook and Messenger groups to deliver mathematics interventions for the students under modular distance learning modality in the new normal situation wherein face-to-face

classes are not permitted. This research gap motivated the researchers to continue conducting action research since it was aligned in the Basic Education Learning Continuity Plan known as BE-LCP, where the study was undertaken. Moreover, DepEd Order No. 012 s. 2020 stated that the research priority for the school year 2020-2021 must be aligned with the BE-LCP of the school.

The figure below shows the study's cycle following the contextualized PDSA model carried out in the study. Each stage has four processes that contribute to the development of the whole study. Each process involves the teacher's activity in executing steps with students' participation following the nature of action research

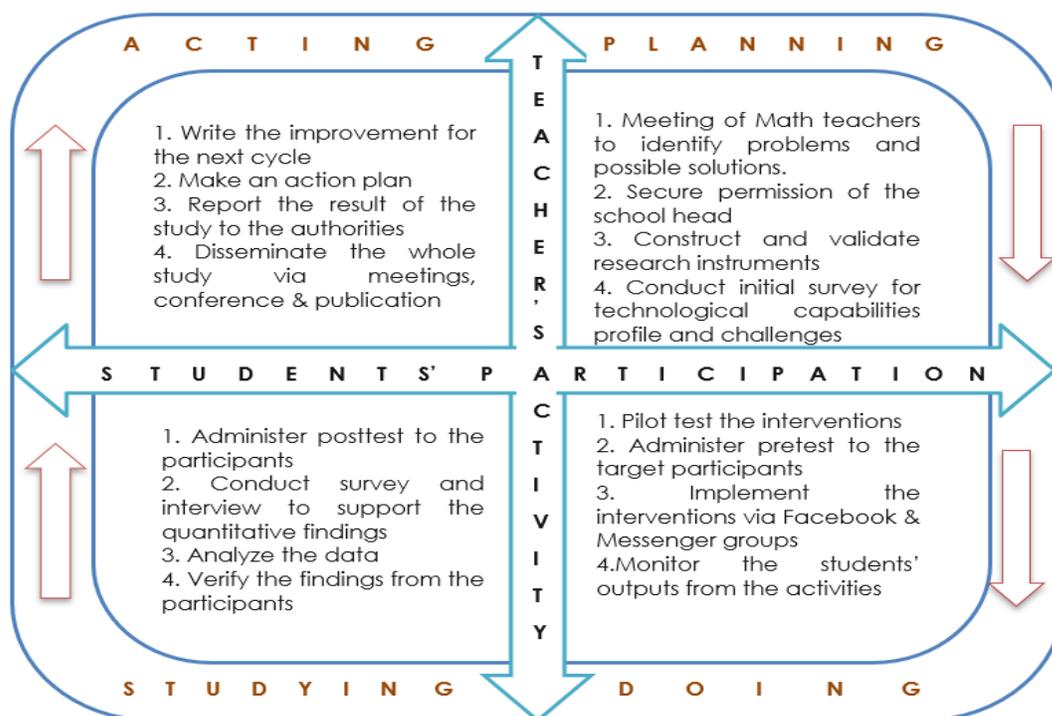


Figure 1. Conceptual paradigm

The study utilized the Facebook and Messenger groups as platforms for delivering mathematics interventions such as posting teacher-made video lessons and activities, additional learning materials, administering summative tests and performance tasks, communicating with the students, and answering the students' queries. The students commonly used these platforms due to their convenience, requiring less consumption on internet bandwidth as long as a device is available. In addition, since most students have mobile phones on their own, social media are easy and convenient for them.

1.1 Action Research Questions

This study aimed to assess Facebook and Messenger groups' utilization as platforms for delivering mathematics interventions for the students. Mainly, it searched to respond to the following questions:

- a. What are the mean scores of students in the pretest and the posttest examination?
- b. Is there a statistical difference in the mean scores of pretest and posttest?
- c. What are the effects of interventions via Facebook and Messenger groups in helping the student to understand the mathematics lesson better?
- d. What are the students' suggestions to improve Facebook and Messenger groups' utilization in delivering the interventions?

2 Methods

The study utilized a practical action design focusing on using Facebook and Messenger groups in delivering Mathematics interventions for modular distance learning in Grade 9 Mathematics. The participants came from four sections of Grade 9. A total of 120 students who participated voluntarily struggled with mathematics lessons, as seen from the previous summative tests' results and performance task, but with internet access and a device. Therefore, purposive sampling was employed in the selection of sections of participants. The study was carried on in San Pedro Relocation Center National High School - Main Campus for the academic year 2020-2021. The said school implemented modular distance learning through self-learning modules given to the students quarterly. However, modules did not arrive timely from publications, and the contents are not easy to understand. So, the teacher made ways to help the students to develop mathematical competencies.

The first instrument in this study was the ten-item initial survey questionnaire for the profiling to determine the technological capabilities and challenges in modular distance learning of the students via Messenger groups. It took two weeks to collect data as the basis of crafting interventions. The second instrument is the 30-item selected-response pretest and another 30-item parallel posttest based on the most essential learning competencies for the 3rd quarter. Two master teachers and one head teacher in the mathematics department validated the said instruments in terms of format and design, content, clarity, and usefulness. Their suggestions were strictly followed, and the revised version was returned for their approval to use the test material. Pilot-testing to non-participants was administered for the reliability index using Kuder-Richardson Formula 20 since the test materials were composed of 60% easy, 30% average, and 10% difficult. The reliability indices are .81 and .84, respectively. The third instrument was the five-item open-ended survey via a poll to elicit the effect of interventions and suggestions for improving the utilization of Facebook and Messenger groups as platforms. Moreover, informal interviews were conducted to verify and clarify the students' answers to the survey via video chat or call.

The figure below shows the data gathering procedure from the pre-implementation to the post-implementation stage. The pre-implementation stage started with securing permission from the school head up to collecting the initial data. Based on the data, 95%

of the students from Grade 9 have internet access via data load or fiber connection. Moreover, 91 % have smartphones, 5% have laptops, and 4 % have tablets owned by the students or parents. Also, 99% of them are Facebook users. These justify the possible realization for the delivery of the mathematics interventions. The implementation stage started from securing consent to monitoring the students on consuming interventions to decide if the teacher must continue the interventions. Finally, the post-implementation started from the posttest administration to data analysis. Quantitative data were treated using SPSS version 23, while qualitative data in thematic analysis through manual coding.

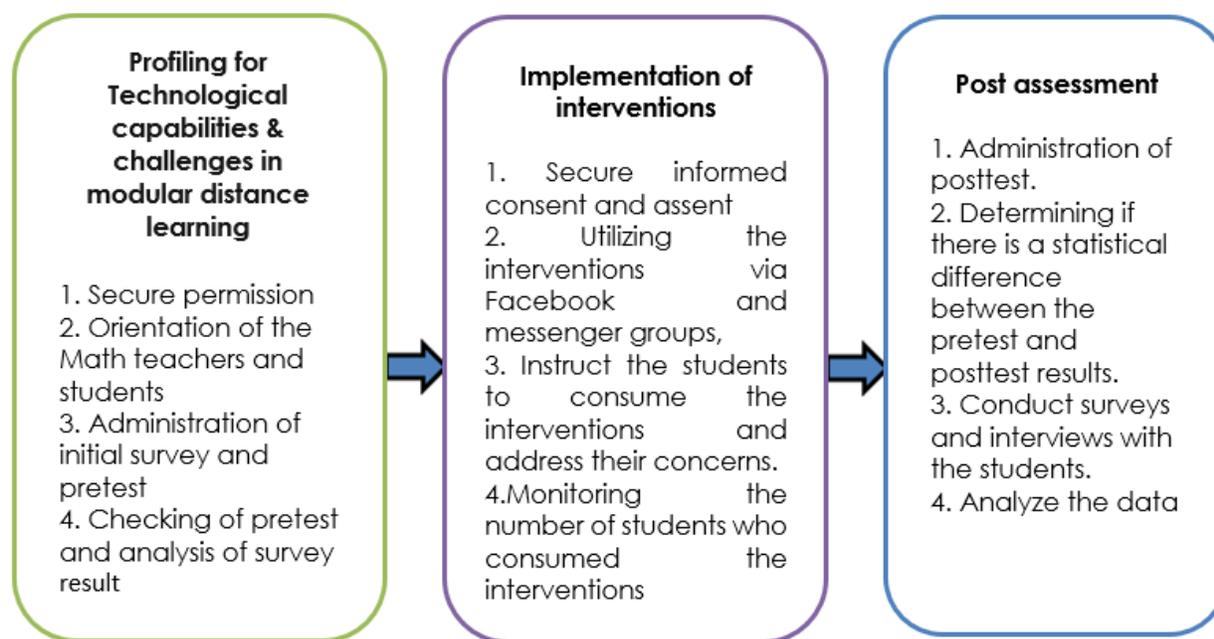


Figure 2. Flow chart of implementation and data gathering procedure

As part of ethical considerations, data confidentiality is rest assured. The participants were informed via informed consent and assent that the data gathered from this study are stored securely on the researcher's personal computer for three years only. However, an electronic summary of the findings is made available to the participants upon their request. Furthermore, the researchers were committed to sharing the results of this study with high school faculty through a learning action cell to discuss the significance of this study to mathematics education. Considering most of the students are Facebook and Messenger users, the interventions via Facebook and Messenger groups from this study were planned to be implemented school-wide for the next school year across different subjects under modular distance learning.

3 Results and Discussion

Numerical data collected through test materials were treated statistically, while thematic analysis for qualitative data from open-ended surveys and interviews. Table 1 below exhibits the normality test of pretest and posttest scores. Based on the one-sample KS test, scores are normally distributed since the p-values are more than .05 level of significance. It implies that the use of the parametric test for the significant difference is permissible. Moreover, section A got the lowest pretest mean, while section B got the highest. Unlikely,

section D got the lowest posttest mean, while section C got the highest. Increased mean scores from pretest to the posttest signifies that the Facebook and Messenger groups can be learning platforms to deliver interventions to improve students' performance in examinations (Farhan, 2019).

Table 1. One-sample Kolmogorov-Smirnov test to determine the normality of data

Statistics		Pretest				Posttest			
		A	B	C	D	A	B	C	D
N		30	30	30	30	30	30	30	30
Normal Parameters ^{a,b}	Mean	9.40	10.73	10.40	10.00	23.17	23.43	23.67	22.83
	Std. Deviation	2.61	3.48	3.22	1.72	3.06	2.49	2.64	3.14
Most Extreme Differences ^s	Absolute	.128	.158	.149	.133	.159	.136	.145	.116
	Positive	.128	.158	.149	.133	.159	.136	.145	.116
	Negative	.128	.158	.149	.133	.116	.116	.100	.116
Test Statistic		.128	.158	.149	.133	.159	.136	.145	.116
Asymp. Sig. (2-tailed)		.200 ^{c,d}	.054 ^c	.086 ^c	.183 ^c	.052 ^c	.167 ^c	.110 ^c	.200 ^{c,d}

As depicted in the table below, a statistical difference appears between the pretest and posttest mean scores from four sections with a p-value of .000 at 29 as a degree of freedom. It means interventions affect the performance of the students. It connotes that the interventions via Facebook and Messenger groups help the students understand the mathematics concepts, and the students could perform well academically. Considering the mean difference, section A got the highest increment while section B got the lowest. The negative sign reveals that the scores in the posttest are higher than in the pretest.

Table 2. Paired samples t-test for significant difference

Pairs		Paired Differences					t	df	Sig. (2-tailed)
		Mean	SD	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
1	PreTest A - Posttest A	-13.767	3.748	.684	-15.166	-12.367	-20.119	29	.000

2	Pretest B - Posttest B	-12.700	4.580	.836	-14.410	-10.990	-15.188	29	.000
3	Pretest C - Posttest C	-13.267	3.930	.717	-14.734	-11.799	-18.490	29	.000
4	Pretest D - Posttest D	-12.833	3.630	.663	-14.189	-11.478	-19.363	29	.000

The figure below shows the effects of the interventions via Facebook and Messenger groups in helping the students to understand mathematics concepts. By watching the posted teacher-made video lessons and reading additional learning materials, students better understand the mathematics lessons and their assigned tasks. They found answering the activities in modules easy since they can go back repeatedly with the posted learning materials and video lessons anytime in the comfort of their houses. Even though some items on module tasks are hard to answer, consuming interventions from FB groups helps them respond to those items independently. Students were able to develop techniques in solving mathematical problems from modules due to watching video lessons repeatedly. It implies that Facebook and Messenger can be used as platforms for delivering interventions, as supported by Wang et al. (2011).

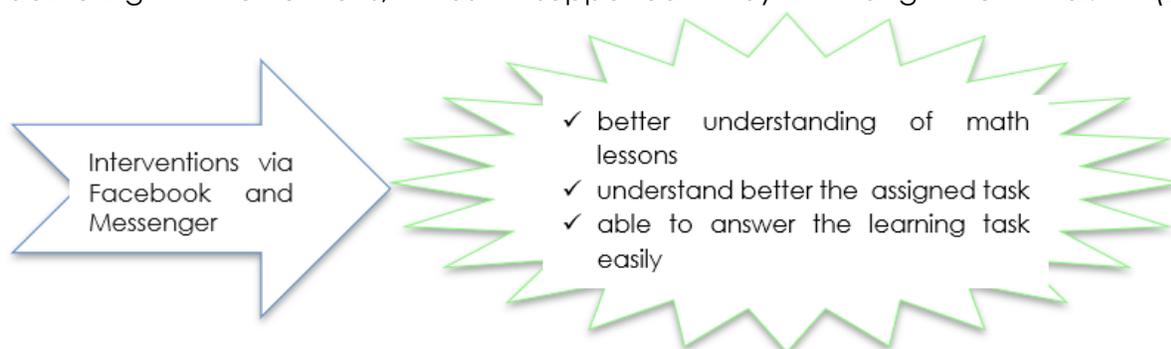


Figure 3. Effects of interventions via Facebook and Messenger groups

Figure 4 below shows the students' suggestions to improve the utilization of Facebook and Messenger groups, such as there must be a schedule uploading learning materials and video lessons so that the students are aware and prepared to consume them regularly. However, the teacher should notify the students in advance if he/she will upload the materials so that the students know when they use the materials since most of them are using data load to have internet access. Moreover, the teacher may conduct a poll to determine if the student is done with the previous task before uploading materials for the next lesson. This will assist the teacher in deciding if the student needs many interventions or not.

Figure

- regular posting of learning materials
- notify the students in advance for posting the materials
- know first if the student is done with the previous task

4.
Student's

suggestions for the improvement of
Facebook and Messenger groups' utilization

4 Conclusions and Recommendations

The study aimed to assess the utilization of Facebook and Messenger groups as platforms to deliver mathematics interventions such as teacher-made video lessons, activities, learning materials, communicating with the students, and administering the summative tests. The students' pretest mean scores ranged from 9.40 to 10.73, while the posttest ranged from 22.83 to 23.67. Based on the results, pretest scores are statistically different from posttest scores. It means the interventions via Facebook and Messenger groups help the students to perform well academically. They understand the mathematics concepts better by consuming interventions repeatedly and answering the assigned task quickly because they know how to do the assigned activities and deal with them. However, they expect a regular posting of interventions to sustain their motivation to consume teacher-made videos and materials. Also, they suggested having advance notification if the teacher will post those materials, and the teacher may conduct a simple survey to know if the students are done with the previous tasks.

The study is limited to four sections of Grade 9 in one school; it is recommended to have school-wide implementations considering the findings of this study to have improved learning outcomes in different subject areas. Moreover, the interventions in this study last for two months only; it is recommended for the next cycle to have a longer implementation time to see how to sustain the interventions and identify the gaps of the teacher's practices to the students' needs in distance learning. For the next cycle of action research, the gaps identified here will be considered to craft interventions suited to different types of students in terms of technological capabilities and interest. There should be a school-wide implementation of interventions via Facebook and Messenger to reach and serve the students by their teachers. Moreover, similar studies may be conducted from other schools to verify the study's findings.

5 Action Plan for the next research cycle

No	Objectives	Activities	Strategies	Time Frame	Expected Outcomes
1	Share the findings and recommendations of the study	Research forum/ LAC session	Collaborate with the department head	July – August 2021	Commitment to implementing the

					recommendations from this study
2.	Formulate a mechanism for maximum utilization of Facebook and Messenger groups	Brainstorming with co-teachers	Organize brainstorming session with the co-teachers	August 2021	Simplified plan for the utilization of Facebook and Messenger groups in different subjects.
3	Make school-wide implementation of interventions	Mathematics teachers meeting	Coordinate with mathematics teachers	Sept 2021 – April 2022	Better learning outcomes
4	Present research at an international conference and publish it in a journal	ARAL 2021 Congress & CBER 2021 presentation	Submit and revise research paper to	May 2021 November 2021	Committed and highly dedicated teachers to conduct action research yearly

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Metacards : An Instructional Material for Teaching Mathematics

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Abstract. This study determined the level of performance of Grade 9 Learners with Hearing Difficulty (LWHD) of Cagayan de Oro National High School – Junior High. An instructional material was used to help learners relearned piece by piece phase with the emphasis on mastery of the competency taught. It is self-guided and leveled mathematics exercise on ordering and comparing integers. The study employed a purposive sampling in the choosing the respondent- participants. They were given pretest and 8-sessions was conducted for LWHD during the intervention program. Each learner worked at the appropriate level and moved ahead at his or her own pace. Then posttest was given after the intervention sessions. The data were analyzed using descriptive and inferential statistics. The results revealed an increase in the level of performance of the participants as it provided reinforcement for the skills they have weakness. It also helped them develop mastery of the topic. Furthermore , the use of metacards provided them practice independent and self-reliant and encouraged personal responsibility of their own progress.

Keywords: LWHD, mathematics performance , metacards

1. Introduction

Over the decades and across grade levels, deaf/hard-of-hearing (d/hh) or Learners with Hearing Difficulty (LHD) performance in mathematics has shown a gap in achievement, specifically on tasks involving computation and reasoning, logical thinking, and problem solving (Pagliaro & Kritzer, 2013). Researches claimed that vast majority of LHD students to be significantly below grade level and behind their hearing counterparts in mathematics (Mitchell, 2008; Traxler, 2000), to be exact LWHD were approximately two years behind their hearing equivalents (Pagliaro & Kritzer, 2013). Hence, there is a

necessity for LHD to be at par with non-LWHD in terms of math performance to be able to access wide range of opportunities in life.

According to Toledo (2010) , it is necessary in deaf education to make technology integral to the learning process because of strong connection between multimedia presentation and information. Teaching materials designed for both visual effectiveness and content can improve significantly student's motivation and comprehension . These may bridge language and communication problem between the teacher and deaf and LHD students, hence, also encourages more engagement from users (Gentry, Chinn, & Moulton, 2005 as cited in Smith, 2009).

COVID-19 pandemic has adverse effects on education including learning disruption and decreased access to education due to change in learning modalities. Learners with Hearing Difficulty found Self - Learning Modules difficult to comprehend specially in mathematics. Feedbacks from learners and parents during the learners monitoring through text, call, and social media claimed that they had difficulties coping up with their lessons in the new normal especially they need reinforcement in their basic mathematics skills.

This study may be anchored on Dattori (2002) proposition that representation is a powerful mediator of mathematical abstractions. Representations are strictly associated with the flexibility to visualise objects, situations and ideas which don't seem to be in immediate view, and for this reason they'll ease and support the progressive process of abstraction that underlies all mathematics learning. Representations have the potential to unblock the mental activity of weaker students during problem solving [Dattori,et al, 1995)].

Thus, the researcher design an instructional material to help Grade 9 LWHD of Cagayan de Oro National High School for the school year 2020-2021 relearn mathematics in a piece by piece phase with the emphasis on mastery of the competency taught.

1.1 Objective

The objective of this research is to determine the influence of the metacards as instructional materials in teaching mathematics to the LWHD performance in mathematics based on the results of their pretest and post test result.

2 Methodology

The study employed a non-probability sampling method, specifically purposive sampling . The respondents of this study are the nine (9) Grade 9 LWHD learners of Cagayan de Oro National High School for the school year 2020-2021.

In this study the researcher will use two instruments to gather the data. These are the teacher made pre-test -post-test questionnaire and the metacards.

The first instrument will be the twenty- nine item teacher made test on comparing and ordering integers. They were given before and after the 8 – sessions intervention.

The second instrument, metacards, is based on the commonly used English reading and comprehension tool known as SRA. These metacard are self-guided and leveled mathematics exercise on ordering and compering integers. Each learner is working at the appropriate level and moving ahead at his or her own pace.

Each meta-card shall advance the student-respondent to another level of exercise; the levels being easy, average and difficult. The teacher checked the answer and if the student-respondent failed to get all correct answer, he shall answer again the same exercise. When he got all correct answer, he move to the next level . And the same process will continue until he reached the difficult level.

Before the start of the research sessions, the LWHD took the pre-test to measure their existing knowledge on comparing and ordering integer . Then, they are instructed to get one metacard that contained the lesson , examples and then the exercises. They repeatedly answer the same metacards until they got all correct answer and went to the next level and so on. Each learner is allowed to answer the activity on their own pace.

The respondents are given a post - test after eight sessions of intervention . Corrections and recoding of the test results followed. The data gathered from the pre-test and post-test are then collated for statistical analysis and corresponding support of the findings from the recorded observations for the eight sessions will be utilized.

2.1 Tables and Figures

Table 1. Pretest-Post Test Mean Result

	Mean	% Difference
Pretest	8.5	125%
Post test	19.125	

Table shows that the mean during the pretest is 8.5. It means that out of the 29 questions , they only answered approximately 9 questions correctly. While the mean during the post test is 19.125 which also mean that out of 29 items, they answered approximately 19 items correctly . This mean that the scores of the LWHD learners has increased by 125%.

The percent difference of 125% showed that the mathematics performance of the LWHD in comparing and ordering integers have increased.

During the FGD, the learners , when asked how did they find the activity, they responded that it is " enjoyable and fun" . According to them, it is easy since the exercises are levelled. They started from easy, average and difficult.

3 Conclusion

Based on the result of the pretest and posttest, the researcher can conclude that the use of metacard in teaching ordering and comparing integers influenced the performance of the Grade 9 LWHD. Furthermore , the researcher observed that it

- a. helped learners gain mastery of the lesson
- b. provided them practice independent work and self-reliance , and
- c. encouraged sense of personal responsibility for one's own progress

The researcher suggests and recommends that a continuous implementation of the these action research be made

a. with other lessons in Mathematics among the LWHD to provide reinforcement for specific skills in which they have weakness and to assess its effectiveness since the study was made for a very limited time.

b. among grade 7 learners who have difficulty on the concept of integers , and

c. in the school numeracy program

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Infusing Communities' Culture in Mathematics Education Through the Digital World

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Abstract. The shift to digital education is undeniably the new normal. Moving towards digital learning transforms education and expands access to learning opportunities across the globe. In this action research, a group of Math teachers from Jamaica, Japan, the Philippines, and the United States of America has designed a Math cultural-exchange activity that allowed the students from different countries to learn the concept of linear functions and share a slice of their culture at the same time. This study has shown the impact of implementing a cultural exchange activity in terms of students' understanding and appreciation of learning Mathematics during the pandemic. A total of 154 7th grade students from the Philippines and the USA were observed to assess the impact and effectiveness of the cultural exchange project. This study showed evidence that as students from different countries learn Mathematics together, their appreciation of learning the subject strengthens. To gather information regarding the different strategies that Mathematics teachers apply to address concerns in teaching during the pandemic, ten High School Math teachers from eight different countries were interviewed. Collaboration among the teacher participants of different countries has contributed to the success of this action research.

Keywords: Math Cultural-exchange activities, Global Collaboration, Digital learning

1 Introduction

Underneath the growing issues of virtual education, there are benefits that students can reap with a little research and dedication as the world continues through the global pandemic. Making the shift to digital education benefits the educators and students in a variety of ways: it extends learning time and options, promotes quality work, and fosters collaboration of digital learners of different communities. In this research a group of 4 Math teachers from different countries: Jamaica, Japan, the Philippines, and the USA has developed a project-based task in Mathematics that aimed to bring students from the listed countries together in understanding and applying concepts of Linear Functions. The main students' task was to promote a local product in their area by creating a business proposal project that they presented to students from the other participating countries. The purpose of this research is to determine whether the cultural exchange activity is effective in developing students' understanding of Linear Functions and promoting appreciation of continuous learning of Mathematics during the pandemic. The study also includes reflections of Mathematics teachers, from different participating countries, regarding their experience in teaching during the outbreak.

With this sudden shift away from the classroom in many countries across the globe, challenges that include students' lowering level of appreciation of learning arises. This quick transition has put not only students but also teachers and administrators in a hot spot. Although some schools regularly attended online schools before COVID-19, a large majority of school systems had no prior experience with remote learning before the pandemic. Students under basic education had to follow a different structure in learning; more independence is being asked of them to succeed in the digital world. Teachers are also being challenged to produce quality digital lessons that they have to deliver in class. This includes proper selections of tools and supports to teach online. Administrators have had to adjust school protocols and procedures to meet the needs of the students. Now that the schools are in a more stable mode due to the immediate need to transition to online learning, teachers need to create class activities to better address the issue of students' lowering level of appreciation of learning. These challenges have inspired the researchers to team up in creating a cultural exchange project that aimed to make the students realize that we are in this together and the opened gate of the digital world shows light for connectedness among learners across the globe.

1.2 Cultural-exchange Activities in Mathematics Education

Haghi (2013) noted that culture includes but not limited to ethnicity, socio-economic status, language, geographic origin, learning manner and abilities, gender and so on it is sensible to retry our teaching approaches and to ponder the role of multicultural approach in the teaching and learning of our students, particularly in the subject of mathematics. In one way or another, mathematics is an integral component of all cultural contexts and the significance of all cultural contexts is influenced by the interpretation of the individual within that culture. To take advantage of these rich cultural experiences means that students should be exposed to a variety of experiences and cultural resources (d'Entremont, 2014). Schools could help students learn about their culture as well as the culture of others through learning activities that demonstrate the relationship between culture and mathematics.

The need for the creation of mathematical experiences that are related to the cultural experiences of students as these experiences are often rich in mathematical concepts (Civil, 2002). According to Gay (2010), culturally responsive instruction is using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them. Cultural exchange has evolved and become more diversified to reflect not only emerging pedagogies and technologies over time but has also adapted to reflect the changing globalized world. Some of the benefits of cultural exchange include global competency, project-based learning, digital literacy, and intercultural collaboration. Research affirms that students' achievement drastically improves when students have opportunities to collaborate (Kagan, 2010). Cooperative learning demonstrates the positive effects of interdependence while highlighting the importance of personal accountability amongst students.

2 Methodology

This study followed an action research process that is composed of a four-stage procedure (Mertler & Charles in 2011). Within this framework, action research is a recursive, cyclical process that typically does not proceed linearly (Johnson, 2008).

Table 1. Action Research Process (adapted from Metler, 2011)

Action Research	Planning Stage
	Acting Stage
	Developing Stage
	Reflecting Stage

The planning stage included identifying a focus problem and research question; gathering background and contextual information; reviewing related literature, and developing a research plan. A collaborative planning process was done by four High School Math teachers from Jamaica, Japan, the Philippines, and the USA. In this period, the participating teachers talked about common problems that they encounter in their Algebra class during the pandemic. The highlighted issue is the students' demotivation of making meaning of their learning of Linear Functions which was highly affected by the sudden shift of the classroom setup. Hence, the researchers have developed a project-based cultural exchange project that aims to improve students' understanding of the unit and appreciation of learning during the virtual setup. The teachers have defined a cultural exchange activity in a way that would focus the research questions and guide planning and implementation of instruction.

This plan has to lead the teachers to seek evidence to answer three specific questions about the cultural exchange project: How do students view learning Mathematics with students from other countries (and of different cultures)? To what extent does the cultural

exchange activity boost students' appreciation of learning Mathematics during the pandemic? Lastly, What strategies do Math teachers of different countries apply in solving concerns in teaching during the pandemic?

The second stage described how data would be collected—in our case, through teacher observations and journal entries, student surveys, teacher surveys, and traditional assessments. The researchers have assessed and implemented the research plan in the research phase simultaneously. For this study, eight 7th grade classes, four classes from the Philippines, and four from the USA, which gives a total of 154 7th grade students were observed to assess the effectiveness of the cultural exchange project. To answer the last research question, ten teachers from different countries, Indonesia (1), Jamaica (1), Japan (1), Namibia (1), Philippines(2), Thailand (1), Saudi Arabia (1), and USA (2), were interviewed to gather information regarding the different strategies that Math teachers of different countries apply in solving concerns in teaching during the pandemic.

The cultural exchange activity is divided into 4 stages. The student's main task was to promote local products in their town through a business proposal project.

Table 2. Stages of Cultural Exchange Activity on Linear Functions

<p>Stage 1</p> <p>Acknowledging students' culture</p>	<p>Stage 2</p> <p>Math Applications</p>	<p>Stage 3</p> <p>Documentation</p>	<p>Stage 4</p> <p>Symposium: Project presentation</p>
<p>For this stage, the students need to research products that are made in their respective towns. They need to select one from these products for the business proposal project.</p>	<p>The task for this stage is to apply the concept of Linear Functions in their project. The output for this stage to create linear models of cost, revenue, and profit functions.</p>	<p>Students were asked to record the process of creating the business proposal. The students were encouraged to record videos of their presentations that they will share with the students from other participating countries.</p>	<p>Finally, the final stage is to collect business partners around the world. A symposium was done to share the student outputs of the participating countries.</p>

The student journals, classroom observations, individual interviews, and teachers' and students' surveys have provided the data that was used to answer the research questions. Furthermore, the instruments and interview results showed certain themes that occurred.

3 Results

In this stage, the researchers analyzed and interpreted the collected data using qualitative analysis methods. The results of the study are presented according to the order of the statement of the problem presented.

1. How do students view learning Mathematics with students from other countries (and of different cultures)?

The student surveys and individual interview results indicate positive answers to the questions that were given to students. A daily teacher journal and a student survey conducted after the unit provided primary data on the success of the cultural exchange project. Analyzed collectively, the journal entries indicate that students met the unit learning goals at the same time enjoyed sharing of culture with the students of different countries.

100% of the students have responded that they would like to participate in more cultural exchange activities in their Math classes in the future. The students appreciated the sharing of different ideas, traditions, and knowledge with students from completely different backgrounds. One of the respondents mentioned in the journal that it is good to know that even though the participants speak different languages and are of different cultures, they were able to relate and communicate through the language of Mathematics.

The student interviews have prevailed that the students have observed some similarities and differences in how the two countries learn Math. For instance, a group of Filipino students has noticed how the math notations of the American students differ from their math notations in class. Nonetheless, the students, with the guidance of the teacher, have figured out that although the presentations are different, the concepts of both presentations are the same. This made the students and the teachers realize the importance of learning with other cultures for students to be globally competitive and for teachers to assess and modify the class activities that they employ in their respective classrooms.

2. To what extent does the cultural exchange activity boost students' appreciation of learning Mathematics during the pandemic?

A notable reflection from one of the students after the symposium was, "This made me think more about how even though we are in different countries, we still learn the same concepts in Math." This is vital as it proves the success of the cultural exchange activity which has an objective to make the students aware that the concepts they learn in their respective Math classes are the same as the classes in other parts of the world. Applying these Math concepts with an idea that is part of their own culture made learning more engaging.

The students have also recognized the efforts that the students of the other participating country have placed in their project. The American students appreciated how the Filipino students have presented their products. The Filipinos incorporated different skills such as making commercials and lively musical videos in promoting their products. On the other hand, the Filipino students have looked up to the confidence that was shown by the American students since most of them followed a formal business style approach. In terms of the business mindset of the two different countries, one of the differences that were noticed among the presented projects was that the students from the Philippines planned more to manufacture their product whereas the students from America planned more to do retailing or buy and sell strategy.

A highlighted reflection from a Filipino student during the symposium was, "The experience changed my perspective on other cultures' way of learning Math because I always thought that other country's Math is very sophisticated and more advanced than ours but during this experience, it changed my belief and learned that we both learn the same Math concepts, it just differs in the way of teaching. I'm really glad that we are equal in education no matter what country or culture you are." More so, the activity made them feel that there is more to explore in this world even during the time of quarantine. The project has allowed the students to promote local products in their town hence made them more proud of the products that represented their community

3. What strategies do Math teachers of different countries apply in solving concerns in teaching during the pandemic?

Another topic the researchers explored is what strategies did Math teachers of different countries applied in their teaching during the pandemic. Ten teachers from different countries, Indonesia (1), Jamaica (1), Japan (1), Namibia (1), Philippines(2), Thailand (1), Saudi Arabia (1), and USA (2), were interviewed to gather information to answer this research question.

Most of the participants' countries shifted to eLearning/digital learning during the pandemic. Due to a lack of resources such as internet connection and devices for students during remote learning, some countries have decided to do asynchronous learning by providing students with guided modules for continuous learning. One of the participating countries decided to do a complete academic freeze during the outbreak.

When asked about the hardest part about the school procedures during the pandemic, the sudden shift to online teaching was highlighted. Online teaching is admittedly challenging not just because of the technical difficulties that may arise during classes but also because this requires a lot of creativity and resourcefulness to be able to let the students be more engaged and motivated in the learning process. Making students engaged in the online setting is a primary concern. The hardest part in the whole process of the delivery of instruction is the creation of instructional materials. In general, the interviewed teachers had a very limited time to prepare considering the set-up is new. It was a very demanding task to conceptualize materials that should work in an environment where teachers have a very little amount of training.

With these challenges, the teachers that were interviewed have shared some strategies that they have implemented in their Math classrooms during the pandemic. Conceptualizing the lessons to suit students' needs and preparing different interventions while considering different types of learners is a vital tool in creating meaningful lessons whether synchronous or asynchronous during the pandemic. They also mentioned considering continuous growth during the pandemic by attending free webinars and research symposiums to guide them in teaching during distance learning. Doing action research and cultural exchange activities. Most importantly, considering the new environment we are in right now, the teachers have mentioned prioritizing everyone's mental health. Keeping the integrity and mental health among teachers and students is a must.

4 Discussion

In the last stage, the researchers reflected on our results and developed a plan for future action. We believe that through such a study teachers will gain a much deeper understanding and appreciation for educating from a global perspective.

The available opportunities for connecting mathematics and cultures are as varied as the people living on our planet. When teachers educate from such a perspective, they help their students to see that mathematics is far more than an isolated subject. The study instead becomes a way to understand the role mathematics plays in shaping culture and the ways that culture guides and response to the use of mathematics in the lives of those who use it.

Teaching students about different cultures prepare them to deal with people at work and communities positively. These activities help them to be more understanding about our differences, and listen to a different perspective about a project, and can come to a better conclusion in a decision making

When teachers collaborate, the interests, backgrounds, and strengths of each teacher can contribute to a project. Teachers collaborate in a multitude of ways when they interact with their colleagues to exchange ideas and resources, discuss student learning, team up for joint activities and knowledge creation. It is in these ways that teachers can co-create and enhance their learning with a shared aim to provide quality learning experiences to their students.

5 Recommendations

Based on this research, there are several recommendations for implementing cultural exchange activities in the math classroom. First, it is considered important to be aware of the cultural backgrounds of the students to be able to design a meaningful activity that recognizes students' differences. Second, in the digital learning era, teacher skills must be developed both in the design and/or transforming of their materials and in the use of technological equipment to reach out to the students with the changing approach in education. Lastly, Math teachers of different countries should continue to collaborate in designing and implementing cultural exchange activities in their Math classrooms to prepare their students to be globally competitive and successful learners.

Collaboration among teachers of other nations is vital to promote cultural relevance with the materials that the teachers provide the students. Partnerships on cross-curricular projects boost students' appreciation of learning Mathematics. One important realization from this sudden shift to digital learning is that our Math classroom should not be bounded by four walls. Teachers should continue to engage students in Math cultural-exchange activity to make them realize that even though we come from different nations, we speak the same language which is the language of Mathematics.

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Mobile Learning Modular App (MoLMA) for Junior High School Biology: Development, Validation, Evaluation and Perceived Usefulness

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Abstract. The recent outbreak of Coronavirus has pushed the educational system to adopt the “New Normal Education Policy”, where face-to-face instruction is restricted, and distance learning is highly encouraged. Despite the advent of technology, most secondary schools in the Philippines still lack an educational platform that will ensure quality learning amidst economical and geographical challenges. To make science learning more flexible and inclusive, the study aimed to develop, validate and evaluate a modular mobile learning application (MoLMA) for Grade 7 Ecology called Knowbel. Specifically, it was intended to test its usefulness based on the teachers’ pre- and post-perception results after the intervention. In the first phase of the study, the Agile Kanban approach was used for app development and the Instructional Design Model for the module development. The app was tested, and its modular content was validated by science teachers and experts. Validation results revealed an average of 4.76 suggesting that all the criteria for module development were met. In the second phase, the app was tried out as an intervention in one of the Grade-7 Ecology classes at Occidental Mindoro State College. Together with the cooperating teacher, four science teachers were invited to evaluate the app and observe the class during the implementation. After the intervention, the Knowbel app gained an overall mean rating of 4.68. This shows that the app is highly effective in delivering its purpose. Though both the pre- and post-perception results of the teachers on the use of m-learning are positive, which are 4.42 and 4.78 consecutively, t-test results revealed a p-value of 0.03 which is less than the set alpha level of 0.05 suggesting that there is a significant difference between the pre- and post-perception scores of the teachers after the intervention was made. This means that the app was a useful intervention to use in science classes in distance learning set-up. It is recommended that the app should be subjected for further evaluation in terms of its technical and design aspects to a larger group of participants for better enhancements of its features. Moreover, to gather an in-

depth user-experience, an interview both to the learners and to the teachers can be made.

Keywords: Biology, Knowbel App, Mobile-Learning Modular App, Perceived Usefulness

1. Introduction

The advent of technology in the current educational arena has provided a new horizon for its progress and development. It has shaped the perspective on how learning can be effectively delivered to the learners of the 21st century [1]. Though as widespread as it is, technology adoption and implementation have never been fully realized until the outbreak of the global coronavirus pandemic [2]. In the onset of the pandemic, educators all over the world are expected to adopt certain pedagogical approaches and to employ effective solutions in extending learning even from a distance [3].

Apparently, as the country gear towards the adoption of online instruction and utilization of digital tools, several challenges and risks have emerged on the surface. This includes increasing technological disparity and decreasing equitable access to education between the fast-developing and slow-developing countries [4]. Consequently, schools in the Philippines particularly in remote areas have difficulty in accessing stable internet connection. Also, not all teachers and students own a personal computer at home [2]. In addition, based on APIS conducted by PSA in 2017, out of 23, 254 families surveyed (in which 70 % of the participants belong to top income strata and the remaining 30% belong to low-income strata), only 22.4% of households have their own personal computer. The largest 21.28% of this belong to the higher-income households while sadly the remaining 1.12% belong to the lower-income households [5].

Interestingly, based on the same survey, more people in the Philippines have access to a cell phone than to a toilet. It could be noted from the survey that of all the electronic gadgets, cellular phones are the most common household appliance in Filipino homes, followed by television. It was noted that 87% of the sample size have cellular phones. 91% of these families are in the higher-income households and 77.7% of these are low-income families who have at least one cellular phone per household [5]. The declining price of mobile phones paved the way for more and more people, including those in remote areas, to own and to use mobile gadgets especially for learning [6].

These reasons open the windows to the use of mobile phones as a tool for instruction delivery and learning, thus the term mobile-learning. Mobile learning is a form of learning dealing with acquiring and obtaining educational content and information, focused on acquiring cognitive skills, or enhancing learning motivation through digital means in personal pocket devices, including smartphones [7]. Evidently, m-learning became a fast-growing trend in educational settings as the development of mobile technologies has enabled learning on the move. As reviewed, most research pertaining to m-learning provides positive feedback on the enhancement of academic performance of the

students all over the world. Not only m-learning perspectives promote ubiquitous learning, self-paced learning and lifelong learning [8].

Mobile-learning apps can be in a modular form. Just like a printed module, the app contents are arranged systematically with language that is easily understood by students according to their level of knowledge and age to be manipulated and used independently [9][10]. It is to be developed bit by bit as a small interchangeable knowledge object. This object is a small piece of self-contained information or instructional content that can be reused as necessary to meet the instructional needs of the learner. This reduces the development time of the learning material and yet can still be modified and extended as the need arises [11].

Though as promising as it is, this kind of approach was not yet fully adopted by the Department of Education. There were developed e-learning resources like modules, SIMS, etc. for K-12 curriculum in DepEd's learning portal, yet none of these were converted into an interactive mobile-learning system app that can be adopted even by schools in remote areas most especially in the current set-up.

Hence, the researcher considered these gaps in education of paramount importance to delve on. Thus, the researcher dwelled on the possibility of utilizing mobile learning technology in Junior High School particularly in Grade 7 Biology subject. Using the newest technological innovation called Progressive Web Application (PWA), the researcher developed a mobile learning modular app as a proposed tool for learning delivery. Moreover, the developed application was subjected to validation and evaluation of its content and technical qualities. Correspondingly, its usefulness was tested through the gathered perception of the teachers before and after the implementation.

Specifically the paper aims to answer the following questions:

- What are the module content validation results of the developed mobile application in the following aspects: Objectives, Lesson Proper, Activities, Evaluation, Clarity and Suitability Approach?
- What are the pre- and post-perceptions of JHS Science teachers on the use of mobile learning approach in distance education in terms of: Delivery of Instruction, Enhancement of Learning, Flexibility and Convenience and Willingness of Adoption?
- Is there significant difference between the pre- and post-perception survey of teacher-users on the usefulness of mobile learning in distance education?
- What are the significant experiences of the teachers in using Knowbel application (MoLMA) in terms of: Functionality, Reliability, Usability, Efficiency and Effectiveness?

2. Materials and Methods

Following a sequential mixed-method method research design, the paper used an Input-Process-Output (IPO) model to describe the undertakings in the study. Shown in figure 1. are the three major processes that the study went through. The study started by having a casual conversation with the teachers in the target school regarding the availability of IMs for Science in a distance learning set-up. After realizing the absence of such, the researcher decided to review the DepEd Science Curriculum Guide and selected a

particular topic to be modularized. The researcher decided to focus on Biology specifically Grade-7 Ecology. Also, reviews on the prominent e-modules and mobile learning apps were conducted. These were used as inputs for the development process.

The process of development is divided into two major phases. Phase I focuses on the development of material while phase II focuses on its implementation. For phase I, the Rowntree's [12] Model on Materials Design and Analysis, Design, Development, Implementation and Evaluation (ADDIE) models were used to craft out the process on the module preparation, materials like lesson plan, assessments and in the process. Assessments were tried out to a group of grade-8 students who have taken the chosen topic last year and were analyzed afterwards. The material was validated by purposively selected science teachers and experts using the revised validation created by Cadio (2009) [13]. Feedbacks and suggestions by the validators were incorporated for the refinement of the material. Meanwhile, the Agile Methodology particularly the Kanban Approach was used for the planning, developing, and creating the mobile app. System flow diagram and architectural framework were drafted to guide the researcher in the process. Single Page (web) Application (SPA) in Vue.js was used for the front-end development while Serverless Architecture with AWS (Amazon Web Services) Lambda at AWS DynamoDB database was used for the back-end.

As for the phase II, the app was implemented in grade-7 Ecology class of Occidental Mindoro State College. Four (4) science teachers were invited, together with their subject teacher, to digitally observe the class during the process. To determine the app's usefulness, a user- experience evaluation and m-learning pre- and post-perception survey were given to the observers. ISO 9126 and ISO 20510: System and Software Quality Requirements and Evaluation (SQuaRE) [14] was used for crafting out the questions for the surveys. The results were used as a basis for future refinement of the developed material.

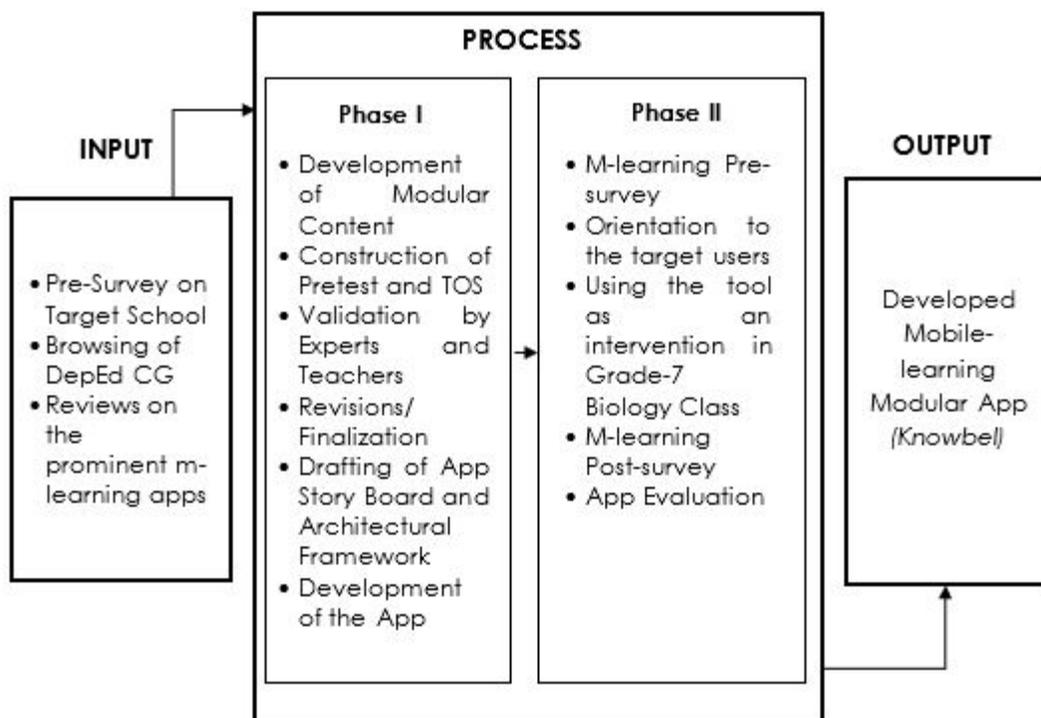


Figure 1. Conceptual Framework of the Study

3 Results and Discussion

3.1 Modular Content Validation Results

Shown in table 1 are the results of the content validation of the module assessed by teachers and experts.

Table 1. Module Validation Results

CRITERIA	AVERAGE	SD	INTERPRETATION
1. Objectives	5	0	Highly Manifested
2. Content	4.5	0.191	Highly Manifested
3. Design Characteristics	4.75	0.035	Highly Manifested
4. Suitability Approach	4.67	0	Highly Manifested
5. Clarity	4.83	0.007	Highly Manifested
6. Evaluation	4.83	0.007	Highly Manifested

FINAL RATING	4.76	Highly Manifested
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Legend: 4.50-5.00- Highly Manifested; 3.50-4.49- Manifested; 2.50-3.49- Moderately Manifested; 1.50-2.49-Slightly Manifested; 1.00-1.49- Not Manifested

Based on the validation results, the module got an overall rating of 4.76 suggesting that all the criteria for module development were met. Particularly, the module got a rating in the following areas: Objective-5.00; Content-4.50; Design Characteristics; 4.75; Suitability Approach- 4.67; Clarity 4.83; and Evaluation-4.83. It can be noticed that the objectives got the perfect rating of 5 which means that it totally reflects the Most Essential Learning Standards (MELCs) provided by the DepEd for the chosen topic. While the content got the lowest rating of 4.5 followed by suitability approach (4.67). In line with those results, validators collectively suggested to improve more on presenting the contents and illustrations to make it more suitable and appealing for grade 7 learners. Some of the important suggestions which are incorporated in the final draft of module are the following:

- adding labels and descriptions for pictures;
- placing pre- and post-tests before and after each lesson;
- adding rubric for scoring lab activities;
- recheck grammatical and typographical errors; and,
- paraphrase sentences to suit more to the targeted learners.

3.2 M-Learning Usefulness as Perceived by Teacher Users

In order to increase technology adoption and the effective use of its tools, faculty perceptions need to be taken into account. Positive perceptions among the users means acceptance of the approach. Teachers' perceptions greatly influence students' learning. Learners enjoy more the process of learning when teachers are enjoying the strategies being employed in their classes. With such, a pre- and post-perception survey was conducted to find out whether it changes their perception regarding the usefulness of m-learning approach.

Table 2 Pre- and Post- Perception Results

Area	Pre-perception		Post-Perception	
	Average	Interpretation	Average	Interpretation
Delivery of Instruction	4.36	Strongly Agree	4.36	Strongly Agree
Enhancement of Learning	4.12	Strongly Agree	4.76	Strongly Agree

Convenience and Flexibility	4.52	Strongly Agree	4.88	Strongly Agree
Willingness to adopt	4.68	Strongly Agree	4.76	Strongly Agree

Legend: 4.50-5.00-Strongly Agree; 3.50-4.49-Agree; 2.50-3.49-Neutral; 1.50-2.49-Disagree; 1.00-1.49- Strongly Disagree

The table above prevails the pre- and post- perceived usefulness of m-learning. It can be noted that prior and after the implementation, the average of teachers' perception on the usefulness of m-learning is both positive. Though both the pre- and post- surveys have positive interpretation, there is an increase in the mean rating of some of the areas in the pre-perception results. This includes the enhancement of learning, convenience and flexibility and willingness to adopt. Among these three, the Enhancement of Learning aspect has the highest mean rating increase This suggests that the app introduced in the class, as observed and evaluated by the teachers, enhanced the learning experiences of the students in science even from a distance. This supports the second assumption of m-learning where learning becomes more personalized. Students can learn at their own pace and style. This helps them acquire independence and responsibility for their own learning which leads to a strong ownership of learning [16][17][18].

Table 3 Significant Difference Between Teachers' Pre- and Post-Perception

	Test	Mean	Std	t-stat	one-tail		Interpretation
					t-crit	p-value	
Respondents	Pre-	4.42	0.40	-2.56	2.13	0.031	Sig. Diff
	Post-	4.78	0.24				

To find out if there is really a significant difference between the pre- and post-perception responses of the respondents, a paired t-test was used. The table above shows the results of the aforesaid difference. The p-value of 0.031 is less than the set alpha level of 0.05 which leads to the rejection of the null hypothesis. Therefore, there is a significant difference between the pre- and post- perceptions of the teachers on the use of m-learning after the implementation. Further, the closed proximity between the mean results of the two tests leads to a negative t-stat= -2.555. Nevertheless, it is still higher than the t-crit= 2.132 which supports the rejection of the null hypothesis. Hence, this

corresponds to the notion that after the intervention teachers' perception on the usefulness of m-learning becomes even more positive. This is a good start point to evaluate the readiness of the school in infusing such approach in their current set-up

Mobile Learning Modular App Effectiveness

After trying out the app for a month in one of the grade-7 classes of the target schools, the teachers' observation and assessment were collected and statistically analyzed. The table below prevails the result of these evaluations.

Table 4 MoLMA Evaluation Results

CRITERIA	AVERAGE	INTERPRETATION
1. Functionality	4.75	Highly Satisfactory
2. Reliability	4.35	Satisfactory
3. Usability	4.75	Highly Satisfactory
4. Efficiency	4.84	Highly Satisfactory
5. Effectiveness	4.72	Highly Satisfactory
FINAL RATING	4.68	Highly Satisfactory

Legend: 4.50-5.00-Highly Satisfactory; 3.50-4.49-Satisfactory; 2.50-3.49-Fairly Satisfactory; 1.50-2.49-Poorly Satisfactory; 1.00-1.49- Unsatisfactory

Of all the assessment ratings, the app efficiency got the highest rating of 4.84 which means that the app can adjust in any device's screen, respond quickly to the users' input command, and can still work despite minimum to zero internet connection. It is followed by functionality and usability with the same mean rating of 4.75. These criteria focus more on the app's ability to operate well; execute its functions and user-friendliness. On the other hand, the reliability got the lowest mean rating of 4.35 which calls for further improvement on its fault-tolerance, recoverability, and other system operation errors. Nevertheless, the final mean rating (4.68) of the app reveals that the teachers are highly satisfied with its overall performance.

4. Conclusion and Recommendation

The MoLMA (Knowbel app) has met the quality standards for mobile-learning modular app development both in its content and technical aspects as revealed by the assessments, testing and evaluation it went through. Likewise, this proves that the application is of high regard and quality based on the judgement of the teacher-users statistically. With continuous refinement, the app has a potential to be a flexible and inclusive mobile-based learning platform in Science as evident with its features. It is recommended to incorporate the feedback from the teacher-users. Also, try to gather responses from the student-users, IT experts and software engineers to further enhance

the application's quality performance. Also, the app can be implemented and tested against other existing mobile-learning module apps to find out its effectiveness. Moreover, Acceptability among the target users can be gathered in the long run.

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The Lived Experiences of Mindfulness Practitioners on the Applicability of a Mindfulness-Based Intervention in Basic Education

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Abstract. Background: Philippine studies in mindfulness are scarce, however, recent published works are slowly rising. This study explored the lived experiences of twelve mindfulness practitioners across multiple fields of work: teachers in yoga and mindfulness, Buddhist devotee and Nun, clinical and school psychologist, prefect of discipline, Jesuit priest and school administrator, and guidance counselors. Themes were extracted through interpretative phenomenological analysis (IPA). Findings: Four themes were found: (1) venue for healing, (2) journey within the self, (3) developing character, and (4) cultivating humanism and harmony. Importantly, such themes were corroborated in the research literature. The results of the study suggest that co-researchers believed mindfulness was beneficial and advantageous to manage difficult inner experiences like emotions, thoughts, or physical sensations; take skillful action; develop calmness, calm relationships, and compassion; be open and tolerant of difficulties; grow in self-understanding,

and presence with others; however, several risks and disadvantages were acknowledged. Conclusions: All co-researchers agree on the feasibility of mindfulness to be taught with school youth. Students should be guided by a well-trained mindfulness practitioner. Application of mindfulness in schools must be used appropriately, effectively weighing its limitations, disadvantages, and risks. Overall, mindfulness-based interventions have great potential in the basic education setting.

Keywords: K-12; Mindfulness Interventions; Mindfulness School Program; Qualitative; Phenomenology

1. Introduction

John Kabat-Zinn (2012) described mindfulness as “awareness, cultivated by paying attention in a sustained and particular way... in the present moment, and non-judgementally” (p. 12). To the primary researcher’s best knowledge, there are no locally written books on mindfulness that could explain the origin of the research interest in the country. Alampay et al. (2020) suggested that a mindfulness program may be a “cost-effective strategy to address the lack of mental health services for Filipino children and adolescents” (p. 305). Given that WHO data suggests that the Philippines is clearly, the Philippines is severely lacking in mental health services to meet the growing demands of the population (WHO, 2006).

In terms of the significant contribution that mindfulness interventions bring to the guidance and counseling profession, several authors advocate for its further association. The American School Counseling Association (ASCA) (2019) position statement on corporal punishment, a school counselor’s role is to teach and practice mindfulness techniques for both the students, parents, and teachers alike. Mindfulness Based Interventions (MBI) address responsive services in guidance and counseling programs like exercises on breathing, attention, and body awareness that may allow for greater calm during times of difficulty, stress or crisis, and preventive services, particularly utilizing classroom guidance to teach mindfulness curriculums with different activities across K-12 levels (Cleveland, 2016). Mindfulness interventions encompass much of the work of school counselors, and is intended to supplement current interventions (Cleveland, 2016). Since the youth are often described as vulnerable to stress and challenges with developing skills for resilience, frustration tolerance and attention, mindfulness may be the answer to the diverse challenges and contexts that the youth face today. This intervention may contribute to the field of guidance and counseling, and in the basic education school setting.

The objective of the study is to understand mindfulness from the lived experiences of different helping professionals in their personal and professional life as mindfulness has been applied in multiple platforms such as wellness, religion, spirituality, and mental health. Moreover, the purpose of the study is to extract valuable insight from mindfulness practitioners and experts whether it is indeed applicable for children since most research show that it is mostly utilized for adults. Overall, the co-researchers are chosen because of their unique perspectives in their practice and interpretation of mindfulness in their own professions particularly: yoga teachers, Buddhist devotee, clinical psychologist,

mindfulness facilitator, prefect of discipline, Roman Catholic Jesuit priest, school psychologist, and guidance counselor.

To the researchers' knowledge, no study has explored the threads of similarities and differences between the varying application of mindfulness from the religious, spiritual, school based and therapeutic setting. As such, within the local research context, this thesis attempts to fill this research gap by exploring the processes, conditions, and lived experience of such mindfulness practitioners, rather than the overemphasized analysis on the effects of mindfulness.

2. Methodology

2.1. Research Design

The study used a qualitative, phenomenological research method. A purposive, snowball sampling was used to recruit co-researchers to the study. Also, co-researchers fit the inclusion criteria having worked in schools or with the youth ages five to eighteen. Then their responses were compared to the research literature to assure validity of their responses. Overall, the research work involved twelve mindfulness practitioners who utilize mindfulness in their occupation, vocation or both; they also have a certain amount of personal practice.

2.2. Research Instrument

The research tool was a researcher-made instrument consisting of a semi-structured interview format with provision for possible observation.

1. What is your profession, and your roles and responsibilities?
2. What is your experience with mindfulness in your profession?
3. What is your experience with mindfulness in your personal life? Has mindfulness been advantageous or disadvantageous for you?
4. How do you experience mindfulness? Can it be applicable and consequential for children and the youth in the school setting?
5. In the school setting, what do you experience as potential risks of the practice of mindfulness for children and youth?

Data analysis in a qualitative, phenomenological research design utilized interpretative phenomenological analysis (IPA) to identify patterns and themes to interpret data and add a deeper understanding of the research topic. This was done through open coding and thematic analysis to acquire superordinate and subordinate thematic domains across interviews.

3. Results

This section reflects critically on the data gathered with the goal of answering the study objectives that guided the research.

Table 2. Summary of Themes.

Superordinate	Subordinate
1. Venue of Healing	Managing Stress and Anxiety Self-Regulation Balance of Emotions Resilience
2. Journey Within the Self	Understanding the Self Connect to Inner Self Self-Acceptance
3. Developing Character	Peace Compassion Insightful Wisdom Kindness
4. Cultivating Humanism & Harmony	Being Present for Others Ripple Effect Towards Good Change

Table 2 demonstrates the summary of themes that answer the lived experiences of mindfulness practitioners. There were four superordinate themes that surfaced through thematic analysis and the accompanying thirteen subordinate themes.

Each mindfulness practitioner detailed their respective profession or vocation, and experience in practicing mindfulness. Despite their unique practices and experience in mindfulness, essential messages were recognized. The lived experiences they had shared led to the discovery of the major and minor themes. Overall, their lived experience in mindfulness was a venue for healing towards managing stress and anxiety, self-regulation, balance of emotions, and resilience. Similarly, there was a resounding observation of a journey within the self towards greater understanding of oneself, greater connection to the inner self, and self-acceptance. Moreover, co-researchers experienced a development of character towards peace, compassion, insightful wisdom and kindness gained as a result of the practice. Lastly, they realized cultivating humanism and harmony through a greater presence for others and ripple effect towards good change for others.

Co-researchers described their experiences with the practice, and they observed an overall positive impact of mindfulness in their personal and professional life. In their professional life, they expressed the advantage of mindfulness on others by helping with stress management, emotion regulation, managing difficult inner and outer experiences, coping with life difficulties, and in building empathy and compassion for others. As revealed by the two psychologists and guidance counselors, mindfulness created a welcoming and safe atmosphere for clients, and being more receptive to begin the counseling process - especially if a client comes in at a heightened state of emotions. Resolvedly, these have positive implications to practice mindfulness in the guidance and

counseling profession. In its entirety, mindfulness was helpful by aiding others in improvement of their wellbeing.

In their personal life, mindfulness influenced three co-researchers in parenting their children by allowing them to be more present for them, supportive, teach coping skills, and learn how to better relate with others. Moreover, all the co-researchers expressed their mindfulness practice as advantageous by teaching them to practice having a healthier relationship with their inner and outer experiences. The ways it was applied to their clients is much the same as how they apply it to themselves - during times of stress, when feeling overwhelmed, anxious or sad, when facing difficult decisions, and dealing with relationship problems. Moreover, several researchers pointed to the two-fold impact that mindfulness practice brings the practitioner, which seeps to others around them. This is what was referred to in the theme as ripple effect of mindfulness. According to 3 out of 12 of the co-researchers, such effects become ubiquitous since mindfulness causes a person who practices it to exude adaptive traits, values, and ways of coping that will naturally positively impact others' lives because of these changes in their inner and outer experiences from their thoughts, emotions, and actions. Lastly, mindfulness had been found by several co-researchers to be universal because its similarities go beyond Buddhism, seeping into their childhood activities like calming strategies, body-based training, and in counseling techniques and Christian contemplative prayer.

All co-researchers found the advantages of mindfulness practice for their clients and saw its applicability with the youth and particularly in the school setting. They even shared reassuring observations on the youth receiving mindfulness practice which bolster the significance to apply this towards them. Also, the co-researchers revealed that mindfulness may be a valid intervention for the youth's troubles given their experienced societal values and context, the parenting strategies commonly used, and from the observed troubles that the youth face today. Several of them described multiple scientific evidence of the powerful application of mindfulness. These include reducing anxiety, stress relief, mental proliferation, rumination, cognitive distortions and default mode network, and reducing aggression, since they are observed to struggle with greater amounts of stress, worry and mental illness. Importantly, the co-researchers who promoted the promising research findings of the practice were validated with links to current research. Hence, their experience of the applicability of mindfulness with the youth in schools in education, discipline, and guidance and counseling are founded in research.

Notably, there were a few notable risks, disadvantages and limitations described by co-researchers which should be addressed given the vulnerability of the youth population. Risks included an incorrect practice when not guided by a seasoned teacher, certain risks with vulnerable clients with mental health concerns; however, as long as the activities are simple and basic mindfulness activities, there seems to be no glaring risks in the practice. Disadvantages noted were that overemphasis may result in greater resistance and openness to try the practice. Also, another disadvantage is a lack of clear understanding of the use of the practice. Another misimpression may be a lack of understanding of the roots of the practice as well as its relationship with other universal practices. Lastly, limitations found include the belief that the practice is a panacea for every issue and by having this belief one may overlook more appropriate solutions to the

problem or needs. These risks, disadvantages and limitations may be integrated and addressed in future research.

4. Discussion

All provided an insightful understanding how mindfulness had been useful and impactful in their own personal and professional lives. Significantly, the array of lived experiences from co-researchers, were all supported by related literature. In particular, managing anxiety and stress were corroborated by Zenner et al. (2014), Dunning et al. (2019), Goyal et al. (2014), and Semple et al. (2017). Similarly, the link between mindfulness and self-regulation were supported by Bender et al. (2018), Maynard et al. (2017), and Zenner et al. (2014). Also, Zenner et al (2014) found the significance of mindfulness in influencing emotional balance as well as resilience. Bender et al., (2018) found that greater self-awareness and self-acceptance seem to be improved with mindfulness. This self-acceptance resulted in a positive link to wellbeing (Britton et al., 2019). Similarly, Klusman et al., (2020) observed that mindfulness brought improved self-connection. Next, Semple et al. (2017) and Jones et al. (2018) found that students became more peaceful with mindfulness interventions; while Centeno & Fernandez (2020) realized that MBCT impacted Filipino college students' empathy and self-compassion. Other connections between mindfulness, peaceful relationships, and compassion were found in Harrington & Dunne (2015) & Zenner et al. (2014). In terms of mindfulness interventions capacity to provide insightful wisdom, Semple et al., (2017) and Zenner et al. (2014) discovered mindfulness involved in such improvement. On the other hand, Creswell (2017) and Semple et al. (2017) noted the relationship of kindness and mindfulness. For Haydicky et al. (2015) they realized that mindfulness was connected to parental stress, and improvement in parent child relations (Turpyn & Chaplin, 2016). In terms of the themes of presence for others, evidence also supported this mindfulness experience in the counseling relationship as found by Lin & Seiden (2015). Lastly, when it comes to the rippling effect of mindfulness towards good change, researchers confirmed in improving a child's social skills (Zoogman et al., 2015), and empathy skills and helping behavior (Berry & Brown, 2017; Donald et al., 2019).

Given the lived experiences of the twelve co-researchers, some supported an early introduction of mindfulness as early as 6 years old, since they are more receptive to new experiences. One of the most significant recommendations center on the importance of a mindfulness teacher to have adequate training, personal practice, and experience in mindfulness before one can be fit to teach others particularly the youth. In other words, these require skilled practitioners who personally practiced mindfulness and are well experienced; this is befitting for mindfulness teachers and counselors tasked to guide students in the school setting. These points have implications on future policy and practice of mindfulness with the youth.

Given the nature of the phenomenological data, it would be difficult to ascertain to what extent mindfulness may best be taught, as curriculum design implications would require further evaluation of quantitative data. Overall, co-researchers advocate for regular, brief, and simple practice of mindfulness. Most co-researchers advocate for simple and brief mindfulness techniques employed for students, which when applied appropriately need not necessarily encroach on religious practice. Qualitative findings taken from the

lived experiences of twelve mindfulness practitioners are not exhaustive but provide a certain level of understanding.

Future research may focus on comparing the mindfulness programs of other schools, other than where the primary researchers and three other co-researchers (participants) are employed. As these may serve as a benchmarking tool for other schools desiring to employ such practices and activities in their own contexts. Future research may employ a mixed methods approach to evaluate mindfulness practice with the youth by including empirically validated mindfulness scales or questionnaires. More future research attention be given with the way mindfulness is applied in the school and clinical setting for youth clients. Further study may be focused to explore student experiences when mindfulness activities or strategies are employed. This may serve to broadly understand the efficacy and evaluation of mindfulness techniques.

The strength of this study is that it attempted to address two major research gaps: the (1) scarcity of local studies in the Philippines on the subject matter, and (2) exploring mindfulness through the experiences of research participants coming from distinct professions and backgrounds. Moreover, saturation of data was attempted by involving at least two co-researchers in the field of yoga, clinical psychology, and guidance and counseling were involved. With co-researchers in other fields of discipline, recruitment for more was not necessary. In addition to these, importantly, this study gathered insight from one basic education school mindfulness program to get a clearer picture how the activities and practices are regularly done. This is important because it places in concrete terms how the mindfulness program concretely applies, its concrete outcomes, and actual reception from students and teachers. Evaluative data is necessary for the pursuance or continuance of any school activities or programs.

5 Conclusions

Each mindfulness practitioner detailed their respective profession or vocation, and experience in practicing mindfulness. Despite their unique practices and experience in mindfulness, essential messages were recognized. Overall, their lived experience in mindfulness was a venue for healing towards managing stress and anxiety, self-regulation, balance of emotions, and resilience. Similarly, there was a resounding observation of a journey within the self towards greater understanding of oneself, greater connection to the inner self, and self-acceptance. Moreover, co-researchers experienced a development of character towards peace, compassion, insightful wisdom, and kindness gained because of the practice. Lastly, they realized cultivating humanism and harmony through a greater presence for others and ripple effect towards good change for others. The findings resounded to a preference for mindfulness-based interventions (MBIs).

All co-researchers agree on the feasibility for mindfulness to be taught with school youth. Findings resulted in input for guidelines and recommendations for integrating mindfulness in schools. Mindfulness practice requires that students be taught by a well-trained practitioner. An understanding of the limitations, disadvantages and risks of mindfulness practice would help the youth who may be vulnerable to the undesirable effects because of improper understanding and implementation of mindfulness. It is important

to recognize that mindfulness practice may be suitable for certain individuals than others and realize when mindfulness interventions may be replaced with more appropriate interventions. Mindfulness practice is advantageous under certain conditions such as in times of stress and anxiety, making decisions, building better relationships, managing tasks, and dealing with difficult emotions, thoughts, or experiences. Mindfulness practice may be used by Guidance Counselors within a small group setting of clients with similar needs. The practice is valuable in creating a safe counseling space of non-judgment for clients, and a means to calm and manage difficult emotions and experiences, and guide clients in making rational decisions. However, unless one were trained in mindfulness based cognitive therapy (MBCT) then this complex approach may be employed, if one is not trained then in MBCT, then mindfulness may be used as an initial and assistive technique in the counseling process, where other more appropriate counseling techniques should be employed. Basic mindfulness techniques like breathing and calming exercises, and helping the client focus and become aware were described to be useful. Mindfulness-based interventions have great potential in the basic education setting since it is characteristically simple, yet effective practices may be appropriate for the youth of today who are faced with greater pressures, stress, and distractions.

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Socio-Demographic Characteristics, Personality Traits and Stress Level of Senior High School Students at De La Salle Medical and Health Science Institute

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Abstract. Students involved with medical school are perceived as being stressful because of the difficulties in the field. The study was conducted to determine the relationship of personality traits and stress level as basis for the development of counseling intervention for the students. This study utilized descriptive correlational method. The study involved 1,003 senior high school students, with ages ranging from 15-20 years old. For the findings, majority of the students are 16-17 years old. Females outnumbered male students. The average monthly family income was ₱50,001 to ₱100,000. Most students were

living with two biological parents and one sibling. Senior high school student's dominant personality types are extraversion and agreeableness. Also, the result revealed that the leading stressors centered on academic workload, anxiety, high expectation of parents and environmental concern. In general, there was no significant relationship between personality traits and stress level. However, it was found that there is significant positive correlation between personality trait of neuroticism and the stress level of the students. Moreover, there is significant negative correlation between personality trait of extraversion, conscientiousness, and openness and stress level. Meanwhile, there is no significant and negative relationship between the personality trait of agreeableness and stress level.

Keywords: stress level; counseling intervention; development; personality; scale

1 Rationale

Mental health is one of the most addressed issues nowadays. Due to increasing rates of suicides and prevalence of anxiety and depression especially among youths, a lot of people work hard to raise awareness to this issue. Moreover, students involved with medical school are perceived as being stressful because of the difficulties in the field. In addition, the academic demands required by institution increases every year, resulting in an increased degree of stress. According to a Dy et al., (2015), the top stressors of their students are academic difficulty of subject matter, workload due to subjects, time management because of subjects, responsibilities due to being on one's own, and time management because of both subjects and organizations. According to most high school students, their greatest academic includes tests, grades, homework, academic and achievement expectations, and parental pressure. School related stresses include inadequate instructional methods, teacher-student relationships, heavy academic workload, poor physical classroom environments, inability to balance one's leisure time with school, and disorganization surrounding academic assignments and schedules. Additional sources consist of a struggle to meet academic standards, worries about time management and concerns over grades and scores. Students are thus, seen to be affected by the negative causes of academic stress. Academic and exam stress is found to be positively correlated with parental pressure and psychiatric problems. It is important to remember that the mental constitution or coping capacities vary from one child to another. Therefore, children with poor coping capacities become more prone to anxiety, depression, and fear of academic failure and this shows us that one should not compare one student with another. (Thakkar, 2018)

In this regard, the researcher had formulated a study to determine the relationship of personality traits and stress level of senior high school students to create a counseling intervention that promotes a change of behavior in the side of students to lessen the

stressors and a higher level of academic achievement, and fewer problems with physiological and interpersonal relationship in the school.

1.1 Objectives of the Study

Generally, the study sought to determine the relationship of personality traits and stress level of senior high school students and be the basis of counseling intervention program proposal. Specifically, the study aimed to: 1. determine the socio-demographic characteristics; 2. determine their level of personality traits; 3. determine their level of stress; 4. identify the degree of relationship between stress level and personality traits; and 5. determine a counseling intervention that can be proposed in the school.

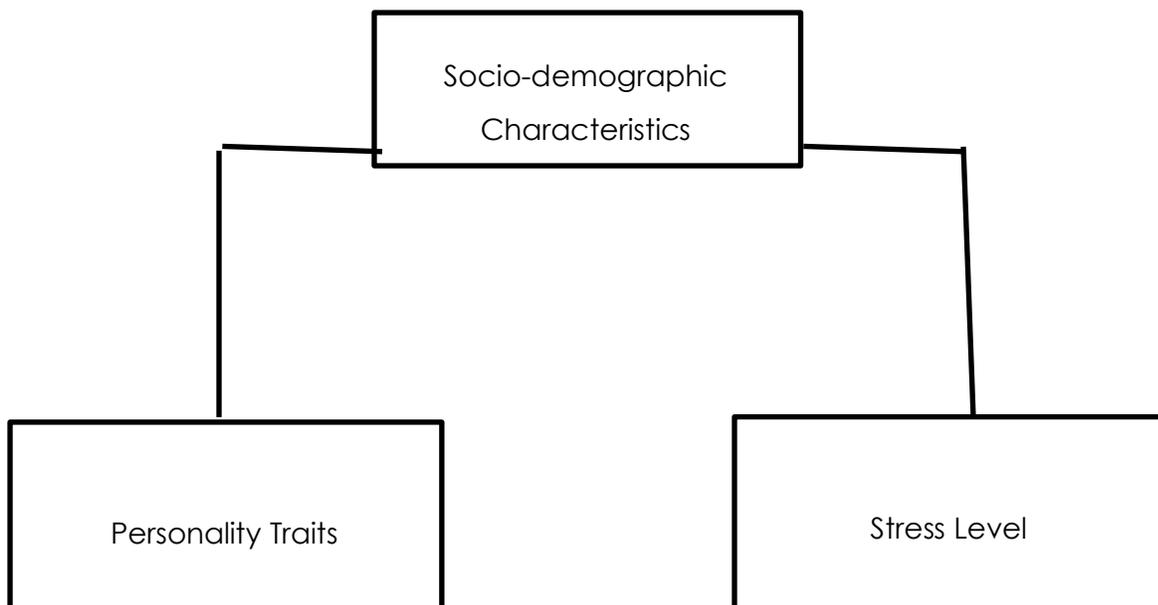
1.2 Hypothesis

The following hypotheses were to be tested to accept or reject the proposed study on the relationship of personality traits and stress level of selected senior high school students in De La Salle Medical and Health Science Institute.

Ho1 There is no significant relationship between personality traits and stress level

1.3 Conceptual Framework

The paradigm reflects what the main aim of the study is on correlating personality traits and stress level and what relationship does each have with each other to formulate a counseling intervention.



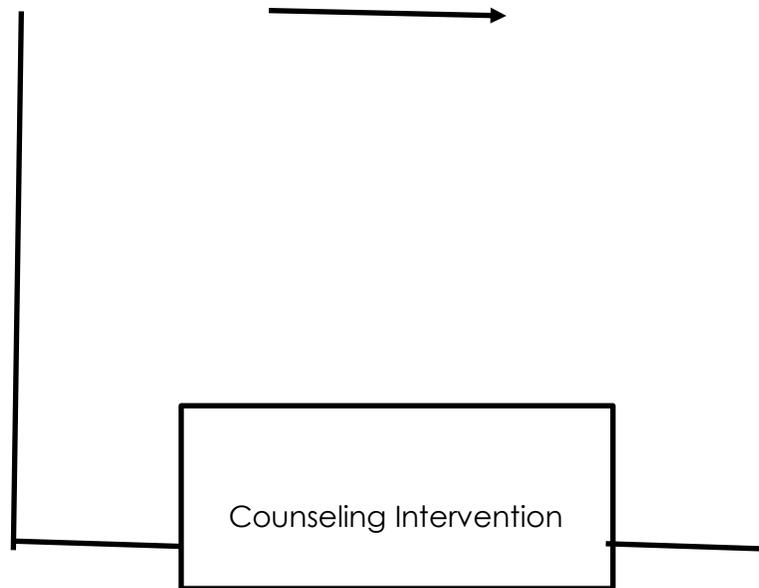


Figure 1. The paradigm of the study.

2 Methodology

2.1 Research Design

Descriptive correlational research design was used in the study. Descriptive research gathers quantifiable information that can be used for statistical inference to your target audience through data analysis. Particularly, this study sought to determine the socio-demographic characteristics: age, sex, monthly family income, parental structure, number of sibling and birth order. The study also determined if the level of stress level have significant relationship to personality traits of the senior high school students

2.2 Participants

One thousand and three (1,003) senior high school students from DLSMHSI Senior High School, with ages ranging from 15-20 years old, regardless of sex, were the participants of the study.

2.3 Research Tool

To measure the variables presented, the researcher administered the following research instruments: Personal Data Sheet. A self-compiled questionnaire consisting of items that served to gather information on age, sex, estimated family income, parental structure, and birth order. This identified whom to include and exclude in the study. Individual Personality Inventory Scale (I.P.I.S). Individual Personality Inventory Scale is composed of 45-item questions format with five (5) responses, which identify the Dominant Personality type of the students. Each question falls under the following respective domains of personality. The items for openness to experience are 1, 6, 11, 16, 21, 26, 31, 36, 41. For

conscientiousness are 2, 7, 12, 17, 22, 27, 32, 37, 42. For extroversion are 3, 8, 13, 18, 23, 28, 33, 38, 43. For agreeableness are 4, 9, 14, 19, 24, 29, 34, 39, 44. For neuroticism are 5, 10, 15, 20, 25, 30, 35, 40, 45. The scoring for Individual Personality Inventory Scale is composed of five responses: 0 – Never, 1 – Rare, 2 – Sometimes, 3 – Often, 4 – Always. In addition, the researcher used Student Stress Inventory, the most widely used psychological instrument for measuring the student stress. SSI contained of 40 negative items to measure 4 subscales (10 items for each subscale) which are sub scale 1: Physical (10 items), sub scale 2: Interpersonal relationship (10 items), sub scale 3: Academic (10 items) and subscale 4: Environmental factor (10 items). As for scoring, the SSI was designed with ordinal scale of the 'Never', 'Somewhat frequent', 'Frequent' and 'Always'. The value mark given for each choice are 1 for 'Never', 2 for 'Somewhat Frequent', 3 for 'Frequent' and 4 for 'Always'.

2.4 Data To be Gathered

The standardized instrument used had undergone ethical and regulatory procedures done by the ethics board of De La Salle Medical and Health Science Institute. In addition, the research study was approved by the ethical review board of Cavite State University. Beforehand, the researcher ensured that the instrument and the purpose of the study would not harm the senior high school students in any way or form. Permission to conduct the study was sought from the Director of the De La Salle Medical and Health Science Institute Special Health Science Senior High School through a request letter to conduct the research with the cooperation of their students covered within the age scale of 15-20 years old or above as students. This served as a formal agreement that was signed by the director of their department (Senior High School) after being informed of all the details and conditions regarding the procedure of conducting the study. This included the utilization of a vacant room within their respective university, that was dedicated for the senior high school students to answer the given questionnaires formally and properly as this can also help the proper distribution of papers.

After data collection, the researcher prepared the data to be interpreted, as it was part of data visualization. To create an organized and accurate interpretation of all the data collected, the researcher analyzed the obtained data to determine the relationship between the variables.

3 Result and Discussions

3.1 Socio-demographic Characteristics of Senior High School Students. In discussion, most of the students were 16 or younger with a mean age 17.09 years. Females have a larger number compared to males. Most of the students' average monthly family income was ₱50,000 to ₱100,00 and above. Majority of the students were living with two biological parents, having one to two siblings, and are first born.

3.2 Personality Traits of Senior High School students. Agreeableness was the most leading personality trait portrayed by the senior high school students with the mean of 28.15, followed by extraversion (25.33) and openness (23.61). Lesser students had the personality traits of conscientiousness (23.59) and neuroticism (21.76). Student personality suggests that majority of the students have dominant characteristics of being agreeable which means they adjust their behavior to suit to other people. They are also compassionate and cooperative and prefer to serve in community leadership roles.

Table 1. Level of personality traits of Senior High School students

Personality Traits	Mean	SD	Percentage
Extraversion	25.33	5.854	High
Agreeableness	28.15	4.493	High
Conscientiousness	23.59	5.818	Average
Neuroticism	21.76	5.968	Average
Openness	23.61	5.335	Average
Total	24.49	5.49	High

Legend: 0 – 12 (Low Level)

13 – 24 (Average Level)

25 – 36 (High Level)

3.3 Stress Level of Senior High School Students. As to the stress level of students, academics was the leading source of stress among the senior high school students with the mean of 26.97, followed by environment (26.88), physical (25.38), and interpersonal (20.96). Generally, majority of the students have a moderate level of stress.

Table 2. Level of stress of senior high school students

Stress Level	Mean	SD	Percentage
Physical	25.38	5.712	Moderate
Interpersonal	20.96	4.559	Moderate
Academics	26.97	6.343	Moderate
Environment	26.88	5.961	Moderate
TOTAL	25.05	5.64	Moderate

Legend: 10 – 20 (Mild Stress Level)

21 – 30 (Moderate Stress Level)

31 – 40 (Severe Stress Level)

3.4 Personality Traits and Stress Level. As to relationship between personality and stress level, personality traits had positive and significant relationship with physical stress and environmental stress. There was a positive and no significant relationship between personality traits and interpersonal stress. Whereas there is negative and no significant relationship between personality traits and academic stress. Also, there is a positive and significant correlation between personality traits of neuroticism and total stress level while there is negative and no significant relationship between personality traits of extraversion, conscientiousness, agreeableness, and openness and total stress level of the students.

Table 3. Relationship between personality traits and (Total) stress level

PERSONALITY TRAITS	SPEARMAN RANK CORRELATION COEFFICIENT	*P-value	REMARKS
Extraversion	-0.113	0.000	Reject Ho
Agreeableness	-0.005	0.870	Accept Ho
Conscientiousness	-0.155	0.000	Reject Ho
Neuroticism	0.511	0.000	Reject Ho
Openness	-0.088	0.005	Reject Ho
Total	0.051	0.109	Accept Ho

*p < or = 0.05 Reject Ho (Significant); p > or = 0.05 Accept Ho (Not Significant)

** r of .1 (small effect size); r of .3 (medium effect size), r of .5 (large effect size)

3.5 Counseling Intervention. The proposed counseling intervention program focuses on personality enhancement namely express yourself, self-change activities, peer interactions and student engagement. Also, the counseling intervention program will give attention to stress reduction which includes psychosocial intervention, parents support, achievement motivation group and green space intervention.

Table 4: Counseling Intervention Learner's needs

Learners Needs	Activities	Participants	Delivery System	Delivery Mechanism	Remarks
Openness	Live, Love, Laugh and Inspire	Learners	Guidance Curriculum	Meeting via canvas system	Expressing yourself is one of the ways

Express yourself activity	Kamustahan Session: The matters of the Heart	Learners and teachers	Guidance Curriculum	Meeting via canvas system	will lessen the stress of the students thru creative interventions.
	Gunita: Feast of Self-Love	Learners	Guidance Curriculum	Meeting via canvas system	
Conscientiousness: Self-Management activities.	Understanding and Befriending myself	Learners and teachers	Guidance Curriculum	Meeting via canvas system	Being organized, align their thoughts, and practice self-control
	Everyone has a story to share	Learners	Guidance Curriculum	Meeting via canvas system	
	Best Class recognition	Learners, teachers, and administrators	Others	Academics	
Extraversion: Social hope Activities	Striving to be Champ	Learners and teachers	Guidance Curriculum	Meeting via canvas system	Exercising sense of belongingness and connection
	Tea Therapy	Learners	Guidance Curriculum	Meeting via canvas system	
	We are one	Learners	Guidance Curriculum	Meeting via canvas system	
Agreeableness: Student Engagement Activities	Someone Special	Learners and teachers	Guidance Curriculum	Meeting via canvas system	Becoming aware of the Lasallian values such as altruism and compassion.
	Dream B. I. G.	Learners	Guidance Curriculum	Meeting via canvas system	
	Lasallian @ Heart Outreach Program	Learners	Others	Social Media Platforms	

Neuroticism Mind Matters	Mindfulness Therapy	Learners and teachers	Support System	Meeting via canvas system	Handling frustration, anxiety, and sadness
	All is well	Learners	Guidance Curriculum	Meeting via canvas system	Handling frustration, anxiety, and sadness.
	Peer Interaction	Learners	Guidance Curriculum	Social Media Platforms	

Learners Needs	Activities	Participants	Delivery System	Delivery Mechanism	Remarks
Physical Stress: Helping hands	Pahinga at Ginhawa	Learners	Support System	Counseling, Consultation, Crisis Intervention online	Aiding physical symptoms with the help of medical personnel
	Psychosocial intervention with the assistance of medical personnel	Learners	Support System	Meeting via canvas system	
Interpersonal Stress: Taking charge	The Perfect Relationship	Learners, parents, and teachers	Support System	Meeting via canvas system	Motivating student's success with the support of parents
	Future and Laughter	Learners, parents, and teachers	Support System	Meeting via canvas system	
	Curriculum Partner	Learners, parents, and teachers	Guidance Curriculum	Meeting via canvas system	

Academic stress: Achievement motivation group	Experiencing the Best.	Learners and teachers	Support System	Meeting via canvas system	Balancing their personal and academic responsibilities.
	Realization Academe	Learners and teachers	Guidance Curriculum	Meeting via canvas system	
Environmental Stress: Time to Relax	Green space	Learners and teachers	Support System	Meeting via canvas system	Reducing environmental stress with green space intervention

3.6 Conclusion

Based on the results and analysis of the research, the following conclusion were derived:

- The average monthly family income of the students is ₱50,001 to ₱100,000 is sufficient in studying at medical school. Also, living with two biological parents and having one sibling can be an ideal situation in terms of resources and support. Most of the students are first born which implies the characteristics of being responsible, achievers and sociable.
- Senior high school students tend to seek out opportunities for social interaction, approachable, had social confidence and optimistic. Along with this, are the characteristics of altruism, amicable, and overall sensitive to the needs of others which is an indicator of being a Lasallian.
- The moderate stress level of senior high school students is caused by handling academic workloads and school responsibility. They also have average coping mechanism resulting to sleeping problem and anxiety. Parents' expectations lead to pressure among the students.
- The students have the tendency to experience stress in terms of physical, interpersonal, academic, and environmental factors when they have a low level of extraversion, conscientiousness, agreeableness, and openness. The students experience more stress when they have a high level of neuroticism. As the students become more creative, open to new ideas, helpful, sociable, enthusiastic, and considerate the students become less stressful. Similarly, students who are more disciplined, organized and achievement striving they less suffer from stress. However, students who become very emotionally reactive, unstable, and anxious are likely to suffer from stress. Therefore, if the personality traits of openness, extraversion, agreeableness and conscientiousness increases, stress

level decreases. Meanwhile, if the personality trait of neuroticism increases, the stress level increases.

- The proposed counseling intervention program focuses on personality enhancement namely express yourself, self-change activities, peer interactions and student engagement. Also, the counseling intervention program will give attention to stress reduction which includes psychosocial intervention, parents support, achievement motivation group and green space intervention.

3.7 Recommendations

Based on the findings of the study, the following recommendation are suggested:

1. Personality development and stress management are highly suggested in the implementation of counseling intervention program. Faculty members and the support of administrators may also be involved for this program to be successful.
2. In reducing stress, stress management practices will be the best way to handle such academic burden, specifically in an exceedingly medical school. Moreover, appropriate stress management may help students to become more motivated. Screening students once a year with self-report measures that evaluate stress, depression, and motivation is also helpful. In parent-teacher relationship, a planned developmental activity to boost parents understanding on their children; and reduced expectations of parents towards students will help in improving the academic life of the students. In the academic side, the administrators may apply measures to enhance the subject matter and pedagogical competence of instructors, reducing academic problem and academic overloads. In battling environmental stress, DLSMHSI community can improve the quality of the learning environment. The concerned bodies possibly can work to combat problems specifically, pollution management, well-equipped classrooms, and recreational centers.
3. The guidance and counseling office may strengthen the provision of guidance and counseling services that deal with the mental health problems of their students and subsequently promote their psychological, social, academic, and emotional well-being.
4. Counseling intervention program will act as a resolution thru progressive and comprehensive approach by focusing on academics, interpersonal and psychosocial concerns to achieve the fullest potential of senior high school students. Enhanced counseling intervention program will be followed specifically in academic stressors and reducing neuroticism enabling them to cope upon the demands of life.
5. The future researchers may consider public school not only the private school. Also, consider comparative method of study to see the difference of the result of public-school students to private school students. In addition, a localized standardized

instrument can be used to fully assessed the specific need of every student and addressed in efficient manner. Furthermore, a follow up study related to the findings can be conducted to support or verify its result.

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Adapting to the New Normal under COVID-19 Circumstances: A Qualitative Analysis of Students' Perceptions, Experiences, and Coping Mechanisms

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Abstract. Drawing from the compelling need to explore and dig deeper on students' realities amidst the unprecedented distance learning due to COVID-19, this study aimed to investigate students' perceptions, experiences, and coping strategies in education within the New Normal. A qualitative research

design was employed involving selected 13 students in Antipolo City. Data was collected through an online semi-structured interview. Thematic analysis of the responses revealed that students have substantial awareness of the severity and impact of the pandemic to their mental health as they encounter unique challenges on socialization, education, transportation and employment. Thus, to mitigate their stress and anxiety, students utilized several coping mechanisms to adjust and adapt to the New Normal. Findings suggest the need to strengthen students' support system, profile the students to foster students' self-efficacy in the new education setting, and uphold contextualization of lessons based on students' profile to sustain academic success. Hence, the researchers spearheaded a Learning Action Cell to help teachers understand the current status of students in the New Normal and reflect on how to address these concerns in planning and executing their lessons.

Keywords: students, learning diversity, learners' profile, New Normal

1 Introduction

On March 16, 2020, President Rodrigo R. Duterte imposed enhanced community quarantine in Luzon, which was a total lockdown (Aguilar, 2020). This was in response to the outbreak of the novel coronavirus of Covid-19, which has had a drastic impact on the nation for the past several months since it has hampered economic activity, challenged health workers, and made almost everyone stay indoors.

The pandemic has prompted the Department of Education (DepEd) to postpone in-person classes until a vaccine against COVID-19 is available and implement an unprecedented distance learning plan that has been met with skepticism by several groups and lawmakers (Bernardo, 2020). With the persistence of the pandemic, DepEd released DepEd Order 12, s.2020, also known as "Adoption of the Basic Education Learning Continuity Plan (BELCP) for School Year 2020-2021 in the Light of the COVID-19 Public Health Emergency." In the BELCP, DepEd identified the points on how the institution will provide basic education among Filipinos. It includes the introduction of Most Essential Learning Competencies (MELCs) that will be taught to students for this school year, which poses a special condition because the nation attempts to continue education amidst the threat of health safety. Furthermore, DepEd launched Learners' Enrolment and Survey Form (LESF) to survey students on their preferred learning modalities. In fact, LESF has served as the basis on the creation of school LCP.

Behind all the efforts and available quantitative data from LESF, there is still a compelling need to explore and dig deeper on students' realities since there is no existing qualitative data in the context of New Normal. There is still a lack of data on the current conditions of students and their coping mechanisms with the challenges in the New Normal. With the rapid transition to a new learning delivery, it is important to note the profile of students in the New Normal. Where are students coming from is an important concern that educators need to know in order to make learning options prosper. Therefore, a study on how students cope with the demands of life in the New Normal is needed.

Recent studies revealed the transition in the modes of learning delivery such as using online learning platforms posed a variety of risks and challenges to both the teachers and students (Bao, 2020). Thus, the New Normal in education includes strengthening educational planning with health as the primary concern to provide quality, inclusive and accessible education for every student (Tria, 2020). However, addressing these challenges requires knowing and understanding students current state not only their physical but also mental well-being as a study revealed that various problems were encountered by students during the lockdown period as they were involved in e-learning such as depression anxiety, poor internet connectivity, and unfavorable study environment at home. Moreover, students from remote areas and marginalized sections mainly face enormous challenges for the study during this pandemic (Kapasia et al., 2020). Furthermore, specific worries related COVID-19 are isolation in social networks, lack of interaction and emotional support, and physical isolation which were associated with negative mental health trajectories (Elmer et al.,2020). In addition, students were also hesitant toward the implementation of an online blended learning approach because of technological and financial hindrances, psychological distress due to ineffective e-Learning systems and fear of academic year loss (Hasan & Bao, 2020) and unequal access to digitized education (Iivari et al., 2020). Therefore, the challenge brought by these exceptional times is how to provide and deliver quality education such as the COVID-19 pandemic (Tria, 2020).

The researcher uses the perspective of human development theory (Erikson, 1963) which posits that different cultures and different family situations allow different timeframes for each stage. Therefore, diversity in family settings, in personality and social identity impacts on students' independence to take on the challenges of the New Normal. It also takes on the notion of social learning theory that a person's motivation and their mental state also influence learning (Bandura, 1977) to further elaborate that learning is shaped by the continuous reciprocal interaction between cognitive, behavioral, and environmental influence. These two learning theories form the framework for this research. In the context of COVID-19 crisis, students' nature of learning, coping methods, and habits may change, which may impact their motivation to take on the challenges of the New Normal in education.

The researchers believe that the academe, especially the young learners, are the most affected by this widespread virus. Students were caught off-guard and were forced to face this challenge on their own. Hence, this study ought to offer significant contributions to educational stakeholders who include educational administrators, curriculum planners, teachers, students, and researchers to validate and acknowledge students' emotions, feelings, and behaviors in these trying times and help them in any way possible. The researchers strongly rely on that this will lead to the provision of mental health and psychosocial support policies and relevant services to the students.

This research emphasizing students in the new normal has ignited venues for reflection, allowing the researchers to look back on the things they have learned and modify strategies and pedagogies to suit unforeseen circumstances like the pandemic for the students. Looking back on all the processes, the researchers opened an opportunity to discuss the massive effects of this pandemic on the students and how they cope through

a Learning Action Cell. It was not an easy way for the researchers, but they realize that difficulties and hardships are just part of the research process, and nothing could be as great as success when you have passed these challenges. Having said all of these, the inner motive of this endeavor is love and compassion for the students.

1.1 Research Questions

Considering the relevance of the above conditions, this research attempted to explore these realities among Filipino learners specifically in the locality of Antipolo City. Baseline data on learners are important in decision-making especially in implementing the curriculum and adopting the policies in education in the New Normal. Hence, this research aimed to answer the following questions:

1. What are the activities of students in the New Normal?
2. How do students perceive the world in the New Normal?
3. What are the challenges that students see in the New Normal?
4. How do students cope with the New Normal?

2 Methodology

2.1 Research Design

This study utilized the qualitative research method. This type of research was beneficial for the study since it described the meanings people have constructed and how they make sense of their world. According to Denzin (1994), qualitative research reports usually represent the multiple perspectives that are inherent in most human endeavors. They also provide detailed explications of the context in which the research was conducted. The researchers focus on the qualitative data to explore the experiences of the respondents.

2.2 Participants

This study used the purposive sampling technique in selecting the participants. The criteria for selection was students from Antipolo City who were currently enrolled in the present academic year during the COVID-19 outbreak, thus the respondents are students in the New Normal in education. Specifically, this study was administered to 13 students of Antipolo City who are 15 to 17 years old. The study involved students who had access to the internet to respond to the interview questions via Facebook messenger.

2.3 Instruments

A researcher-made unstructured interview questions were utilized. This type of interview is open and flexible wherein the contents, sequence, and wordings of the questions depend upon the researchers who make use of an interview guide. The interview questions went through face and content validation among 3 teachers. The researchers modified the interview questions based on the suggestions of the validators.

2.4 Data Collection

Data were collected via Facebook messenger due to its convenience and familiarity to the respondents. Face-to-face discussion and interviews were prohibited and not encouraged due to strict health protocols. To get preliminary data, the researchers provided a google form for students to answer and secure consent for data privacy purposes. After the consent form, the researcher informed the students about the study and its purpose. The interview was carried out for 2 to 3 hours to collect sufficient data from the participants. The students were given enough time to respond to the questions and to detail their experiences. The researchers debriefed the participants to answer the research questions and instructed them to feel comfortable in sharing their opinions. The responses of the students were transcribed.

To establish the overall perceptions, the responses were tabulated and analyzed using thematic analysis through the process of open coding to identify the common themes. Open coding was used to identify the participants' perceptions of the New Normal to produce prominent themes. The themes were clustered into larger categories. The highlighted words or phrases in the statements of the participants were analyzed to formulate themes. All data were organized, coded, and accounted for consistency and accuracy. The consistency of the interpretation made by the researchers were verified through a correspondence with the participants to ensure that the emerging themes and patterns are valid, truthful, and trustworthy.

3 Results and Discussion

This section provides the findings and discussion of the results based on the thematic analyses of interviews. The researchers identified the themes reflected on the current state of students in the New Normal.

3.1 Activities of Students in the New Normal

Within the New Normal, data reveal that students' lifestyle has changed with the onset of the pandemic. Five themes have emerged from the responses: (1) Reflecting on the Sudden Abrupt Changes in their lives, (2) Focusing on their hobbies and personal interest, (3) Spending More Time on Social Media, (4) Doing and helping more in the household chores, and (5) Resting and reflecting on current challenges. A student reminisced, "My life before the pandemic was more active and fun. What I miss the most is playing basketball, hanging out with friends, and going to different places." Another student shared, "In the first few days of the community quarantine I didn't really spend that much time being productive and thinking about my life for the future, but after a few weeks I started to really think and reflect about my life and how I currently live it."

3.2 Students' Perceptions about the World in the New Normal

The New Normal presents unique challenges to students particularly on the aspect of health. As the world faces pandemic, strict measures are observed to prevent the spread of the virus. Data reveal that students have sufficient awareness and understanding of the New Normal which centers on adhering to health measures to stay safe thus, the following themes have emerged: (1) strict health measures and restrictions are the New Normal, (2) restricted public transport, (3) transition to virtual communication, (4) massive shift to distance education, and (5) a call for effective government intervention. One

student expressed, "New Normal for me is the better, safe, and more disciplined type of our lives because New Normal is taking us away from *danger and especially to the virus.*"

3.3 Challenges to Students in the New Normal

It is evident from the responses of the students that acknowledging the New Normal is a challenge for them as they usually engage in active activities such as attending school and hanging out with their peers. Furthermore, pandemic brought financial hardships and economic pain to families who have lost jobs and income. Moreover, the mental health of the students became vulnerable as they faced challenges brought by the outbreak. With the presence of various stressors, the self-efficacy of students in studying at home may be negatively affected. Hence, the following themes emerged: (1) missing the Old Normal, (2) unemployment of family members, (3) dealing with stress and anxiety, (4) poor internet connectivity, and (5) difficulty in self-paced learning.

3.4 Coping Mechanisms of Students in the New Normal

With various stressors emerging related to COVID-19, students' adjustments and activities in the New Normal were brought to light to see how they are coping amidst the pandemic. Hence, following themes have emerged: (1) students' adjustments in the New Normal, (2) keeping a positive mind and proactive lifestyle, (3) changing Routines, (4) strengthening physical and mental health, and (5) Strengthening physical and mental health. A student remarked, "*Stress and anxiety are kicking whenever I think of my upcoming class because we still do not have a stable internet connection. Also, I am always overthinking whenever my father will be at home after staying at his work for 15 days. Thoughts like, what if my dad is infected or some of his co-workers are. It stresses and frightens me.*" Another student mentioned, "I think of the ways that can distract myself to avoid anxiety and stress brought by the pandemic. I read books, watch my favorite T.V. series, catch up with friends, talk with my family, listen to music, and sometimes I just turn my phone off, go to our rooftop, and contemplate the beauty of the surroundings despite the current happenings.

4. Conclusions

As demonstrated in the findings, the study revealed that students viewed the New Normal as a world of unique challenges and difficulties in communication, education, employment, and transportation, it can be concluded that students are greatly affected by the pandemic, and their needs need to be identified and addressed, so education will continue and prosper. With the massive transition in education to digitized learning modalities, students are facing various challenges from financial hindrances causing unequal opportunities to the New Normal in education which echoes the findings of livari et al., (2020) on the digital gap among learners and Kapasia et al. (2020) on the cases of marginalized learners. Different stressors caused students to be prone to negative mental health which is consistent with Bao (2020) that the pandemic poses a variety of risks. Therefore, students are vulnerable in this time of pandemic.

Therefore, students need every possible help to cope and adjust in the New Normal as results showed that their mental health is highly susceptible to stress and anxiety, thus having a strong support system is of great significance. This affirms the findings of Elmer et al. (2020) that social and physical isolation impact students' mental health. Hence students having a positive environment at home and good social networks to buffer their stress and help are more effective in facing the New Normal in education. While, students who have less direct contact with close family members and friends receive less social support and have weaker social networks or outlets for their negative feelings may have higher risk of developing mental health problems during the COVID-19 crisis. This can be linked from Bandura's Social Learning Theory that mental states are important in learning. The intrinsic motivation in the form of mental support from parents, teachers and peers are vital to the motivation of students to learn effectively amidst the pandemic.

4.1 Recommendations

In the conduct of this action research, the proponents spearheaded a learning action cell that aimed to facilitate discussion on reporting the results of the study to teachers and generating ideas on responding to the results. To ignite professional discussions, teachers may follow this track.

Based on the conclusions, to mitigate the anxiety felt by the students, teachers and administrators may provide stress management activities to students to foster their coping mechanisms as well as monitor their mental state since they are prone to anxiety. Teachers and administrators may develop physical and mental health measures as interventions to students together with their parents to strengthen students' support systems as they face the New Normal in education and the various stressors emerging amidst the pandemic. Social contact and reaching out to parents and students are essential to monitor students' self-efficacy and their capacity to deal with stress and anxiety. Furthermore, teachers and administrators may get students' profiles in the New Normal to foster students' self-efficacy in the new education settings. Teachers should uphold contextualization of lessons based on students' profiles and may be of great help to still ensure academic success. Finally, students with highest-need who are experiencing barriers to the different learning modalities provided to them may be prioritized.

While this study offers useful information regarding students' perception, experience and coping strategies in the New Normal, it has limited generalizability because of the size of the sample and the type of statistical analysis performed. Thus, future studies including more students or the using quantitative data would offer more angle to this problem.

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Tulog Insakto Kaon ug Tarung Oras para sa Kaugalingung Kalambuan (TIKTOKK): An Intervention to Reduce Anxiety

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Abstract. Tulog Insakto, Kaon ug Tarung, Oras para sa Kaugalingung Kalambuan (TIKTOKK) aims on reducing students' anxiety in the modular learning modality. TIKTOKK uses the modified structured monitoring schedule based on the general class schedule provided by the school academic coordinator. It provides a detailed set of activity per time interval incorporating the necessary time schedule intended for sleeping, eating, and self-reflecting. The participants are Grade 9-Gold students of Mambuaya National High School divided into two groups, the TIKTOKK group and the without TIKTOKK group. The researcher used purposive sampling in choosing the respondents. The study used quasi-experimental method of research design. Anxiety level perceived by students is obtained by answering the anxiety level test adapted from anxiety test for modular & distance approach (Powers, 1986). After the 5-week implementation of the intervention strategy TIKTOKK was found effective in reducing students' anxiety level brought by the modular learning approach and enhancing students' learning of the learned concepts covered. Students have shown significantly positive increased in their first grading average grades as compared to their fourth quarter average grade from the previous school year. Moreover, the employed intervention made the participants' to be more focused, engaged and interested in learning.

Keywords : anxiety, modular learning, intervention, modified structured schedule

1. Introduction

Classes for SY 2020-2021 formally started in October, in lieu the Department of Education (DepEd) provided Self-Learning Modules (SLMs) with the alternative learning delivery modalities offered for various types of learners nationwide. According to DepEd Secretary Leonor M. Briones the purpose of SLMs and the other alternative learning delivery modalities is to address the needs situations, and resources of each learner and will cover all the bases in ensuring that basic education will be accessible amid the present crisis posed by COVID-19.

The integration of SLMs with the alternative learning delivery modalities (modular, television-based, radio-based instruction, blended, and online) will help DepEd ensure that all learners have access to quality basic education for SY 2020-2021 with face-to-face classes still prohibited due to the public health situation. Over the past months, there have been significant disruptions to life and those who have been affected greatly are learners. Not being able to see classmates and friends, transitioning to studying online or at home and losing out on real-life interaction with teachers are among the factors they have had to deal with. One student's experience of the pandemic will be greatly different from another.

With the intense preparation of teachers for the new normal in education, comes the distribution of modules to every learner. There are provided modules in every subject,

and students need to answer and accomplish the module at a specified time, although it is properly disseminated by the teachers that the learners should feel free to take their own time and pace in answering the modules and that they are not given a strict time frame to finish, there are still students who experience anxiety given their limited understanding of the topic.

Worldwide, one in three teenagers experienced clinically significant anxiety in their lifetime (Merikangas et al. 2010). The current pandemic situation heavily impacts everyday life, levels of anxiety in children and teens are even higher, and the possibility of subsequent trauma are greater. In these unprecedented times, teachers are rising to the occasion creatively and quickly to shift to remote learning amidst school closures. Even in a traditional classroom, it can be a challenge to support students with anxiety and trauma histories to stay calm and learn. With distance learning, this difficulty is magnified.

In the case of Mambuaya National High School, which is a hinterland school in Cagayan de Oro City, it is really challenging to monitor individual student's activity through phone call, text messaging, and even on social media platforms. This is due to the limited mobile signal in the area and financial capability of the learners' families as well. Most learners do not have a stable access of the internet and some do not have their own gadgets to use in researching relevant information in the web. With these factors, it has come to the school administration that there are MNHS students who have had developed anxiety in this new normal in education.

However, teachers can do something to reduce anxiety in students even while teaching remotely. During this crisis, the need to prioritize students' mental health over academics should primarily be considered. The impact of trauma can be lifelong, so what students learn during this time ultimately would not be as important as whether they feel safe and sound. When students are separated from their school adults, it is paramount to help them continue to feel safe, cared for, and connected. In this study, the researchers focuses on three aspect that mainly contributes to anxiety experienced by students in academic activities.

Enough sleep significantly impacts mental functioning and thus impacts students' performance on quizzes, examinations and ultimately grades received (Alhola, Polo-Kantola, 2007). The pattern of sleep one experiences in a 24-hour period directly related with physical health, mood, and mental functioning Curcio, Ferrara, De Gennaro, 2006). Lack of enough sleep also interferes brain function of cognitive processes. The most notably impacted structure is the prefrontal cortex, which performs greater brain functions which includes language, working memory, logical reasoning, and creativity (Alhola, Polo-Kantola, 2007).

One study demonstrated a positive association between eating and academic achievement, whereby students who reported consuming regular meals on time, including specifically breakfast, as well as students who reported higher consumption of fruit, were found to have higher academic achievement (Burrows et al., 2007).

Self-reflection helps students to review the group process and their own personal functioning in the group, understand how their learning and problem-solving strategies might be reapplied, and relate new knowledge to prior understanding. Students learn self-reflection when they become proficient in assessing their own progression in learning. (Salomon and Perkins, 1989). One approach to improving self-reflection is using reflection journals (Hmelo-Silver, 2004).

This action research is anchored on Republic Act No. 111036 known as the Mental Health Act which promotes the well-being of people by ensuring that mental health is valued, promoted, and protected. Mental health conditions are treated and prevented. On the other hand, the Department of Education (DepEd) has adhered to the act, and highlighted the need, and has created a pro-active stance in responding to Mental Health issues in the classroom by providing psychosocial interventions prior to the start of classes.

With this premise, the researcher spearheaded the action research titled *Tulog Insakto Kaon ug Tarung Oras para sa Kaugalingung Kalambuan (TIKTOKK): An Intervention to Reduce Anxiety*. The objective of this research is to closely monitor students' progress mentally through the activity given in the modules and giving appropriate mental breaks with emphasis on sleeping on time, eating right, and self-reflecting time. Specifically, the study sought to answer the questions: How can TIKTOKK reduce the students' anxiety level on modular learning modality? How effective is TIKTOKK as an intervention to improve student learning?

1.2 Methodology

The intervention that will be used in this action research is TIKTOKK. TIKTOKK is an acronym which stands for "Tulog Insakto Kaon ug Tarung Oras para sa Kaugalingung Kalambuan" in which it uses a modified structured monitoring schedule based on the general class schedule provided by the school's academic coordinator. The structured monitoring schedule provides a detailed set of activity per time interval incorporating the necessary time schedule intended for sleeping, eating, and self-reflecting. Prior to the giving of a structured schedule, the students will be given an anxiety level pre-assessment to obtain data as basis for comparison after the four-week TIKTOKK implementation.

The participants of the study will be the Junior High School students of Grade 9-Gold of Mambuaya National High School, Division of Cagayan de Oro City. In a class of 24 students, there will be two groups to be formed—the with TIKTOKK group and the without TIKTOKK group. The with TIKTOKK group will be the experimental group, that means that they will be exposed to the intervention for four weeks. While the without TIKTOKK group

will be considered as the control group that will not be exposed of the intervention. These two groups are composed of heterogenous types of students based on their previous academic achievements.

This action research will use a mixed methods of research design wherein a qualitative and quantitative methods of research will be used. In the qualitative part, the researchers will describe the situation of the grade 9 Gold students' specifically their level of anxiety in the modular learning approach. Likewise, the students' experience within the 4-week implementation of the intervention will be narrated factually and accurately without being predisposed by the researchers. In the quantitative part, descriptive statistics like frequency counting, percentage and mean will be used to interpret the gathered data.

The researcher used purposive sampling in choosing the respondents for the study. This is because the researcher is also the adviser and subject teacher of the class being studied. Furthermore, the researcher knows the general academic and behavioral standing of the class. Data gathering will be done through three different steps, first is through answering a designed checklist journal, by which students will identify the task they have accomplished and write down their own reflection for each day during the four weeks implementation. Second is through a focus group interview, the researchers interview approximately six to eight respondents who share similar perceptions on the intervention administered to them. Third and final method is by answering the anxiety level post-test, which will also be given to them before the conduct of the study.

2. Research Findings

After the implementation of the intervention, the researchers have compared the participants' pre and posttest scores, and the Fourth Quarter grades from the previous school year and the First Quarter Grades of the current school year.

2.1 On the Effectivity of TIKTOKK in Reducing Students Anxiety

Presented in a tabular form below is the students' perceived level of anxiety with TIKTOKK intervention and without TIKTOKK intervention.

Table 1. Students' Perceived Level of Anxiety with TIKTOKK and Without TIKTOKK After the 5-week intervention

Indicators	Without TIKTOKK			With TIKTOKK		
	Mean	SD	Description	Mean	SD	Description
1.I felt unsure and tense while answering modules.	2.60	0.450	Agree	3.8	0.432	Disagree

2. Thinking about the scores I would get interfered with my work on the test.	2.60	0.450	Agree	3.6	0.422	Disagree
3. The harder I worked at answering the modules, the more confused I got.	3.01	0.314	Neither Agree nor Disagree	3.8	0.432	Disagree
4. Thoughts of doing poorly interfered with my concentration in answering.	3.00	0.316	Neither Agree nor Disagree	3.7	0.523	Disagree
5. Even when I am well prepared for a module activity, I feel very nervous about it.	2.52	0.422	Agree	3.9	0.554	Disagree
6. I froze up on the test	2.27	0.448	Agree	3.4	0.517	Disagree
7. I seem to defeat myself while working on the activities.	2.47	0.343	Agree	3.7	0.523	Disagree
8. I worried a great deal before answering.	2.24	0.316	Agree	3.6	0.422	Disagree
9. During my time answering I found myself thinking about the consequences of failing.	2.60	0.219	Agree	3.9	0.554	Disagree
10. I will stay feeling very uneasy just before getting my scores back.	2.20	0.715	Agree	3.5	0.321	Disagree
	$\mu=2.55$			$\mu=3.69$		
MEAN DIFFERENCE: 1.14						

Legend: 1.0-1.80 Strongly Agree, 1.81-2.60 Agree, 2.61-3.40 Neither Agree or Disagree, 3.41-4.20 Disagree, 4.21-5.00 Strongly Disagree

Table 1 depicts the students' perceived level of anxiety with TIKTOKK and without TIKTOKK after the 5-week intervention. For without TIKTOKK column, it could be noted that in questions 1-2 and 5-10 with means ranging 1.81-2.60, students collectively responded "AGREE" to the statement which indicates a moderately high anxiety level interpretation. For questions 3-4 with means ranging 2.61-3.40, students collectively responded "NEITHER AGREE OR DISAGREE", which indicates a high anxiety level interpretation. On the other hand, for the with TIKTOKK column, it is clearly emphasized in questions 1-10 with means ranging from 3.41-4.20, students collectively responded "DISAGREE" to the statements

which denotes a low level of anxiety interpretation. This indicates that TIKTOKK as an intervention is an effective tool to reduce students' anxiety towards modular learning.

Table 2. Fourth Quarter Grades from the Previous School Year and First Quarter Grades in the current School Year Obtained by the Participants

Without TIKTOKK				With TIKTOKK			
Code	4 th Quarter Average	1 st Quarter Average	Increase in Grade	Code	4 th Quarter Average	1 st Quarter Average	Increase in Grade
SC	85	82	-3	DSAM	89	90	1
JMH	90	91	1	KTJ	95	96	1
LJA	87	83	-3	CDM	93	95	2
OBB	79	78	-1	RRB	86	89	3
PML	95	94	-1	JML	83	87	4
MEAN DIFFERENCE: 3.6							

Table 2 shows the Fourth Quarter Average Grade and First Quarter Average Grades of the participants. Results revealed apparent difference on the participants' grade from both groups with a mean difference of 3.6, which indicates efficacy of the intervention in improving students' learning as evident in the increase of their average grade.

Four out five students in the control group or without TIKTOKK group have significant decrease in their grades while five out of five students in the experimental group or with TIKTOKK group have a significant increase in their grades. This shows the effectivity of the intervention.

3. Conclusion

TIKTOKK as an intervention promotes among the students the development of healthy habits of sleeping on time, eating the right food, and allowing time for self entertainment and family interaction as shown on the structured schedule crafted for the purpose of this study. The research primarily aims on finding out the effectivity of TIKTOKK as an intervention to reduce students anxiety in modular learning modality and thus with the setup of having two groups, the control group which is the without TIKTOKK group and the experimental group which is the with TIKTOKK group, the researchers were able to find out that the experimental group or TIKTOKK Group have a significant decrease of anxiety level after the invention was given to them. On the other hand the experimental group or the without TIKTOKK group students have retained a high to moderately high level of anxiety. This futhermore strengthens the reseachers' claim that TIKTOKK as an intervention is effective in reducing anxiety among students in the modular learning approach.

The implementation of the intervention strategy called “TIKTOKK”: Tulog Insakto Kaon ug Tarung Oras para sa Kaugalingung (TIKTOKK) was found effective in reducing students' anxiety level brought by the modular learning approach and enhancing students' learning of the learned concepts covered. Students have shown significantly positive increased in their first grading average grades as compared to their fourth quarter average grade from the previous school year. Moreover, the employed intervention made the participants' to be more focused, engaged and interested in learning. With this intervention, the participants' have a will developed holistically. In the study the intervention was found to be effective in reducing students' anxiety in modular learning approach thus the researchers would really recommend for the study to be implanted and not only limited to Grade 9 Gold students. Also, to ensure project sustainability, the researcher will extend this project to the neighboring schools so that other academic institution will be able to benefit from the positive impacts of using the intervention on their own students. When this happens, we are helping build a community of learners with good mental and psychosocial health

Among the habits emphasized and that comes along the intervention are essential habits that every student must practice ensuring a holistically healthy being, thus the researchers furtherly recommend that the Guidance and Counseling Office must work together to give thorough reminders that should be cascaded to the students specially to the parents or guardians about the importance of eating the right kind and amount of foods, having a good sleeping habit and a time for self and family leisure.

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Emotional Intelligence and Emotional-Stress Response of Grade-10 Students of Gusa Regional Science High School – X under Modular Teaching Modality

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Abstract. The pandemic transformed the world into the new normal way of life. The Philippine education catered to a new paradigm of learning, modeled the modular teaching modality to suffice the need for continuous education. This rapid transition of learning gave rise to numerous reactions from students and other stakeholders. Thus, this study aims to determine the emotional stress response and level of emotional intelligence of students during the implementation of the modular teaching modality. The study used the Perceived Stress Scale Test (PSS) and Trait Emotional Intelligence Questionnaire (TEIQue-SF). Respondents are the Grade 10 students, 32 males and 81 females, of Gusa Regional Science High School-X. Results indicated a very high emotional stress and average emotional intelligence across gender. Contributory factors which led to high emotional stress were massive school works, lack of sleep and academic burnout. Though elevated stress response is evident, the average emotional intelligence of the students showed their capability to effectively cope with academic stress. Further, score showed insignificant difference of emotional stress and emotional intelligence by gender and negative relationship between emotional intelligence and emotional stress. It showed that emotional intelligence affects the level of stress and a good indicator for academic and emotional sustainability.

Keywords: emotional stress, emotional intelligence, modular

1 Introduction

The world faced a challenging situation when a novel Corona-virus disease (COVID-19) outbreak began. The Department of Education in the Philippines has decided to shift its face-to-face classes to different modalities such as modular, online, Radio-based Instruction, and Television-Based Instruction. In this new way of learning, students are also considered vulnerable. As discussed in the study of Cao et al. (2020), students experienced anxiety symptoms. These symptoms are associated with their concerns on the delay of academics, effects of the pandemic to the economy, and its impact to their daily lives. Substantive impacts on students contain several academic problems including stress during exams, problems in answering their modules, expectations about academic success or their incapability to understand the lessons (Wickens, 2011).

These rapid shifts in the educational system heighten the need to further investigate the students' emotional intelligence. Emotional intelligence (EI) has been widely accepted

as stress buffer (Lea, et al., 2019). High emotional intelligence entails better well-being, problem-focused coping, and perceived competency. However, lower emotional intelligence entails higher perceived stress (Por, 2011). Specifically, the researchers find it with supreme importance to determine the level of emotional intelligence and emotional stress of the students in this time of pandemic. This is to provide a realistic data that could be the baseline of giving them appropriate support and intervention.

The study focused on identifying the emotional-intelligence and emotional stress of Grade 10 students while having Modular Teaching Modality during this new normal education. This study is limited to the following parameters: demographic profile of the respondents under modular teaching modality, level of stress of the respondents under modular teaching modality, emotional-intelligence of the respondents under modular teaching modality. Specifically, the study aimed to answer the following questions: (1) What are the levels of stress and emotional intelligence of Grade 10 students of GRSHS-X under modular teaching modality?; (2) Do the levels of emotional stress and emotional intelligence differ significantly by gender?; and (3) Do the levels of emotional stress and emotional intelligence show significant relationship?.

2 Methods

The study utilized a non-experimental correlational design. The respondents of this study were the Grade 10 students of Gusa Regional Science High School – X. There were 113 participants, 32 males and 81 females, who voluntarily participated in the study. The researchers employed purposive sampling procedure. The study was administered and questionnaires were floated online using Google Form. The researchers included in the survey questionnaire a thorough explanation of the study's purpose, confidentiality, and instruction. This was to ensure that respondents thoroughly understood the nature and risks of their participation.

Further, this research used the following instruments to obtain desired data, to wit: (1) the Perceived Stress Scale was used to measure the level of coping strategy from psychological stress for each individual with reference to gender, age, education, status and other demographics. It measured how different factors affect the individual level of perceived stress based on their coping mechanisms (Cohen, 1994); & (2) Emotional Intelligence Questionnaire- TEIQue-SF, a 30-item questionnaire, was employed to assess emotional intelligence on a global trait and was based on the complete TEIQue form (Petrides, 2009).

The following analysis and tools were employed to have an accurate interpretation of the obtained data: (1) Average weighted mean & standard deviation were utilized to describe the respondents' mean sample size, age, level of stress and emotional intelligence; (2) Pearson Correlation was used to identify significant relationship between the respondents' level of stress and emotional intelligence. This approach showed the corresponding values of the respondents' level of stress and emotional intelligence with appropriate relationship in a scatter plot diagram; and (3) Independent Two- Sample t-Test was used to determine significant difference obtained by the respondents' emotional intelligence and emotional stress in terms of gender.

3 Results and Discussion

This part presents, analyzes, and interprets the data gathered. The presentation of results follows the sequence of the problems as presented above.

3.1 Levels of Emotional Stress and Emotional Intelligence of Grade 10 Students in GRSHS-X under Modular Teaching Modality

Table 1. Emotional Stress Level of Grade 10 Students in GRSHS-X

Level of Emotional Stress (PSS)				
	N	Mean Score	SD	Interpretation
Male	32	22.94	5.80	Very High
Female	81	24.51	5.84	Very High
Total	113			

Stress Level (PSS): 0-7=very low stress, 8-11 is low stress, 12-15= average stress, 16-20=high stress,

21+ =very high stress;

The data in Table 1 show the level of emotional stress of Grade 10 students of Gusa Regional Science High School – X under modular teaching modality. The data show that the average mean score for the perceived stress level of Grade 10 students is 22.94 and 24.51, respectively. Result interprets that students have very high level of stress during the 1st Quarter implementation of the modular teaching modality. Females having a greater perceived stress mean score (24.51) is supported by the study of the Organization for Economic Co-operation and Development (OECD) in 2017, stating that out of the 37% students who felt very tense in school, girls consistently reported to have a greater stress compared to boys related to school works.

Further, results showed that the common factors that contribute to their high level of stress are mostly related to school matters such as too many modules to answers, beating the deadlines, inability to efficiently manage time, unexpected low grades, and uncertainties if they are actually learning or was simply answering the modules. Academic-related factors of stresses, such as massive academic works, sleep deprivation, and academic burnout were also mentioned to be contributory factors of the students' stress.

Students expressed that they were not free to do whatever they want because they were caught up with massive school related work at home. As verbalized by, "not being able to feel free, I always feel like doing these modules were like a prison plus I have to do kumon which is like modules on modules stacked". UNESCO (2012) validated the mentioned statement, in which they stated that students in secondary and tertiary levels are more likely to develop stress due to wide range of ongoing hassles of academic demands. In addition, such validation was related to pressures to achieve higher marks and concerning dilemma on attaining poor grades. The indication of having minimal time to sleep due to answering modules is serious health risk and reported to be a contributory factor for stress in many young people (Bernet et al., 2007) and vis-à-vis stress

may also contribute to deprived sleeping pattern (Curcio et al., 2006). Young students often develop stress related to distance learning or self-learning modules because of the transition, incapability and immaturity to adapt in a distant education modality (Yaw, 2017).

Table 2. Level of Emotional Intelligence of Grade 10 Students in GRSHS-X

Level of Emotional Intelligence (TEIQue)				
	N	Score	SD	Interpretation
Male	32	3.81	0.76	Average
Female	81	4.03	0.91	Average
Total	113			

Level of Emotional Intelligence (TEIQue): 1-3=Low, 3.1- 4.9=Average, 5- 7=High

Table 2 clearly reflects that the students got an average level of emotional intelligence, true to both male and female. This means that the Emotional Intelligence (EI) score of the overall sample is on average compared to the standardized sample of the TEIQue, a standardized test for Emotional Intelligence. The average mean scores garnered from the TEIQue-SF Test was consolidated and depicted a score of 3.81 for males and 4.03 for females, with a standard deviation of 0.76 and 0.91, respectively, from the total population sample of 113 Grade 10 students. The data show a lower standard deviation and closer to zero (0.76 & 0.91) which would indicate clustered scores nearer to the average mean score.

Despite the pandemic, students have shown resiliency in handling stress. The result is supported by the study of Kumar (2020) which found out that the emotion intelligence level of secondary students was average in nature. Both male and females garner an average mean scores on all aspects of emotional intelligence; 4.32 for emotional well-being, 3.48 for self-control, 4.24 for emotionality and 3.65 for sociability. These data state that the students are on the average level of handling their emotions and stress. This adequately shows that they can moderately cope with their emotions in any stressful situations, communicate and use their emotions effectively especially in managing their stress.

The students displayed a positive response to the stress they incurred during the span of implementation of modular teaching modality. As verbalized, "I try to be creative so that I could be somewhat proud of myself, but if it's really heavy and making music won't satisfy me I just cry and cry and cry and hope that it will end" and "I vent. Or talk it out with my mom", are evidences of positive stress management. These are indicators that the students displayed moderate self-control, well-being, emotionality, and sociability. Interpersonal communication, exercise, self-appraisal are some practices that enhance psychological well-being (Lee and Loke, 2005).

The average mean score of EI for females are slightly higher than males (4.03> 3.81) which is supported by a study conducted by Lee and Loke in 2005 which states that females students are more likely to accept stressful events in life that cannot be change compared males. And females are more prone to discuss their problems and life concerns to people that are closer to them, although there is no significant difference on their level of emotional intelligence. This debunks the findings of Ishaq, Shabbir and Khan (2020) which concluded that that female respondents have lower emotional intelligent compared to the male respondents.

3.2 Comparison of Emotional Stress and Emotional Intelligence Levels of Grade 10 Students of GRSHS-X under Modular Teaching Modality

Table 3. Independent Sample t-Test Table Examining the Difference of Emotional Stress among Grade 10 Students based on Gender (Male vs Female)

	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal Variances Assumed	0.710	0.401	-1.289	111	.200 ^{NS}	-1.57	1.22
Equal variances not assumed			-1.293	57.269	.201	-1.57	1.21

*Significant at 0.05 level, ^{NS}Not Significant

As reflected in Table 3, the independent sample t-test yielded a T value of -1.289 and a computed probability value of 0.200, which is higher than the 0.05 level of significance. This led to the failure of rejecting the null hypothesis. This means that there is no significant difference in the students' level of emotional stress based on gender.

Thus, the result is consonance with the study of Ptacek et al., in 1994, stating that the coping tendencies for stress of both male and female were insignificantly different and showed no difference in coping as evidenced by varied coping management practices. In addition, the effect sizes of the results presented associated with gender roles were statistically weak to moderate (Moksnes et al., 2010), indicating that the difference of emotional stress by gender is insignificant. Even though stress levels may also differ by age and gender, the variation of its susceptibility acquired for both males and females is not specifically distinguishable (Antoniou, 2006).

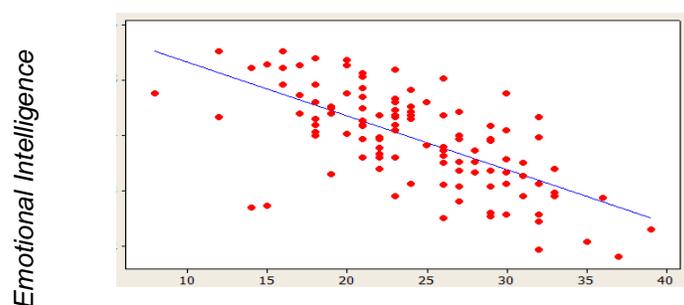
Table 4. Independent Sample t-Test Table Examining the Difference of Emotional Intelligence among Grade 10 Students based on Gender (Male vs Female)

	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Equal Variances Assumed	1.781	0.185	-1.190	111	.237 ^{NS}	-.21677	.18220
Equal variances not assumed			-1.290	68.099	.201	-.21677	.16805

*Significant at 0.05 level, ^{NS}Not Significant

The independent sample t-test yielded a T value of -1.19 and a computed probability value of 0.237, which is higher than the 0.05 level of significance. This led to the failure of rejecting the null hypothesis. This means that there is no significant difference in the students' level of emotional intelligence based on gender. Such findings is supported by the study of Katoch (2013) which stated that when it comes to gender, students do not differ significantly on their level of emotional intelligence. The result is also similar to the study of Ghorai (2021) which revealed that there is no statistically significant difference in the student's level of emotional intelligence when respect to their gender.

3.3 The Relationship between Emotional Stress and Emotional Intelligence among Grade 10 Students based on Gender



*Pearson correlation value: Emotional Stress -0.653 (moderate negative correlation)

Figure 1. Scatter Plot Showing the Relationship between Emotional Stress and Emotional Intelligence

Figure 1 reflects that emotional stress and emotional intelligence are indirectly proportionate to each other. Data showed average negative correlation. It implies that high emotional intelligence leads to low emotional stress response. This result is in line with the findings of the several studies which conclude that higher emotional intelligence negatively relates to perceived stress as shown in the study of Lea, et al. (2019) and Por (2011). Ye-hat et al, (2019) further supports this result as the study yielded that higher level of Emotional Intelligence relates to lower Emotional Stress. Findings simply do support the notion that if an individual's emotional intelligence increases, his ability to cope with stress increases as well. In other words, it is sufficient to say that those who have higher emotional intelligence experience less stress.

4 Conclusion

The present study explored the emotional stress and emotional intelligence of the Grade 10 students in Gusa Regional Science High School –X . From the findings of this study, it can be derived that the students have higher level of stress and average emotional intelligence across gender under the modular teaching modality. Higher emotional stress was caused by massive academic works, academic burnout and sleep deprivation. In addition, students feel pressured to attain higher marks, which led to academic distress. On the other hand, the students' emotional stress and emotional intelligence did not differ significantly when grouped according to gender. Emotional intelligence negatively correlates against emotional stress. This implies that higher emotional intelligence leads to lower emotional stress response. Therefore, students were effective in applying coping strategies necessary in adapting to the new normal education.

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Factors Affecting Senior High School Students' Decision in Choosing a Career Path

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Abstract: Choosing a career path is becoming more important for Senior High Students today, especially in choosing a school to enroll in college. Students have to consider many things, especially this pandemic time, causing them to doubt their decisions. The Senior High School Department of Cagayan de Oro College-PHINMA implemented the program, *Pangandam*, to continue supporting Senior High School Students in their career choices. The program is a series of an episode which discusses college courses and opportunities for Grade 12 Students. This action research's main objective was to investigate the factors affecting senior high school students' decision in choosing a career path and to assess the program's effectiveness. It utilized the descriptive survey method of research. It used basic statistics such as mean, frequency, percentage, and T-test for the results' analysis and tabulation. The researcher used a questionnaire through google form covering all the variables on a four-point Likert scale. Results showed that most of the respondents were undecided about their career path when they graduate high school. When considering a school to enroll in college, most of the respondents viewed very high importance to scholarship and education quality. However, students considered it moderately important to parent's choice and peer influence to enroll in their chosen school. Results also showed a significant difference in the students' decision in choosing a career path after the implementation of the *Pangandam* program.

Keywords: Career Path, College, Pangandam, Senior High School, Scholarship

1. Context and Rationale

A career choice is one of the most significant problems and challenges in a student's life. It includes an exchange of numerous components that are complicatedly interlaced. It is not a straightforward task, and it involves the complex process of decision-making. As indicated by Nyamwange, J. (2016), a student's current circumstances, gifts, abilities, and scholarly accomplishments affect the career choice. Students have to consider many things, especially this pandemic time, causing them to doubt their decisions. In case of a wrong choice, it might prompt resultant disappointment and frustration. Research shows that homes, schools, and social arrangements impact a Students' career choice. Monetary possibilities impact their career choice as they need to meet family expenses. Different factors like fitness, life conditions, and scholastic achievement have been demonstrated as determinants of career choices (Kazi, A. S., & Akhlaq, A. 2017).

In the Philippines, one of the significant reforms in the educational system is implementing the K to 12 programs. Its goal is for the "development of a holistically developed Filipino with the 21st-century skills who are ready for employment, entrepreneurship, middle-level skills development and Higher education upon graduation from Grade 12." The K to 12 Basic Education Program is a flagship program of the Department of Education, which introduces the additional two years of Senior High School – Grades 11 and 12. Through the K to 12, Students are equipped to develop Filipinos with 21st Century Skills holistically and ready for the world. Moreover, as mandated by the Department of Education, schools must conduct activities under the Career Guidance Program to assist Senior High school students in their career path after they graduate High school. However, with COVID-19, DepEd Secretary Leonor Briones announced the postponement of face-to-face classes until a vaccine is available, making the conduct of CGP affected, which gives uncertainty to the Students.

With this challenge, the Senior High school department of Cagayan de Oro College-PHINMA implemented the program called Pangandam to continue supporting Senior High School Students in their career choices. The program is a series of an episode that discusses college courses and opportunities to Grade 12 students together with their parents. The department, in collaboration with the school's stakeholders, invited School's Alumni and College Deans via Facebook Live to promote awareness of the importance of choosing a career that suits the students' skills and interests that match society's available resources and needs through the school's full support and involvement. The program's goal is to guide the Grade 12 Students, despite the challenges and paradigm shift of education, and ensure that no child should be left behind during this time of uncertainty. Part of the program showed how the industry works and their responsibilities if they pursue a job in that industry. A clear career path will arm the students with the skills they need to succeed in the future. Thus, this action research's main objective was to investigate the factors affecting senior high school student's decision to choose a career path and assess the program's effectiveness of Cagayan De Oro College-PHINMA.

2. Action Research Questions

This action research sought to answer the following questions.

1. What are the top three factors affecting the respondents' decision to enroll in college?
2. What is the respondents' decision to choose a career path before implementing the program?
3. Is there a significant difference in the respondents' decision in choosing a career path when the program was implemented?

2.1 Hypothesis

Problems 1 and 2 are hypotheses-free. For problem 3, null hypotheses were tested at a 0.05 level of significance.

H₀: There is no significant difference in the respondents' decision in choosing a career path when the program was implemented.

3. Innovation, Intervention, and Strategy

The Senior High School Department implemented an intervention to guide the Grade 12 Students in choosing their career path after graduation. The following strategies were implemented:

1. One of the school's Career Guidance Program activities is the Student Success Program (SSP) conduct in the Senior High School Department, which the class adviser shall deliver during each semester. It aims to promote awareness of the importance of choosing a track that suits their skills and interests that matches society's available resources and needs.

2. The Student Success Program Manual has been developed to help the advisers help Senior High school Students prepare them for a career they would want to pursue after Senior High. The manual is composed of eleven modules in the form of student activity sheets. The modules build up one after the other such that at the initial module, the students are presented with different career choices, slowly developing and intensifying in the subsequent modules that tackle the different factors affecting the fulfillment of a dream/goal, how to deal with these factors, the preparations for equipping oneself with the skills required of a profession, including honing one's attributes and characteristics that are equally essential as the technical capabilities when applying for work. As such, by the last module, the Students would have been very confident about the career he/she intends to undertake.

3. To strengthen the understanding of the Grade 12 Students about the career, the Senior High school department implemented the program Pangandam. This program was fully supported by the stakeholders of Cagayan de Oro College-PHINMA, and the companies where the schools' Alumni are working locally and abroad actively supported the program. The school's alumni and the College Deans were invited to overview every course being offered in COC-PHINMA. Since the program is conducted via Facebook Live, Students, parents, and the community were encouraged to ask questions and clarifications to the guest speakers and deans.

4. Action Research Method

This study used a descriptive survey method to identify the top three expressed career paths of the Grade 12 Students after graduating High school and the effectiveness of the initiated program. The participants were selected 230 Grade 12 Students of Cagayan de Oro College-PHINMA. The study participants were enrolled in Grade 12 in the 2nd Semester academic year 2020-2021. Descriptive statistics, such as mean, frequency, and standard deviation, were used to analyze the students' decision in choosing a career path. T-test analyses were conducted to determine differences between students' decisions in choosing a career path before and after the program.

4.1. Participants and/or other Sources of Data and Information

The primary participants of this action research were the Grade 12 Students of Cagayan de Oro College-PHINMA enrolled in 2nd Semester SY 2020-2021. There were 230 Grade, 12 Students as the respondents in this action research. There were forty-six

(46) HUMSS Students, sixty (60) STEM Students, sixty-six (66) ABM Students, fifty-eight (58) GAS Students.

Table 1. Number of Participants

Strand	Number of Participants
HUMSS	46
STEM	60
ABM	66
GAS	58
Total	230

4.2. Data Gathering Methods

Methods in collecting the data were questionnaires using google forms. In administering the questionnaire, the researcher gave the link to the students per section through their SSP Group Chat messenger during the Student Success Program Period to avoid class discussions. The student responses were given enough time to answer the questions. After data gathering, the researcher collected it for tallying the scores and apply the statistical treatment to be used with the study.

4.3. Plan for Analysis

The instrument used was a researcher-made four-point Likert scale questionnaire to gather the needed data for the students' responses. The draft of the questionnaire was drawn out based on the researcher's readings, previous studies, professional literature, published and unpublished thesis relevant to the study. In the instrument's preparation, the designing of an exemplary data collection instrument was considered.

5. Discussion of Result

This chapter presents the results and discussions of the research questions in the statement of the problem.

1. What are the top three factors affecting the respondents' decision to enroll in college?

Table 2. Factors Affecting the Grade 12 Students' Decision to Enroll in College

Factors	Mean	SD	Interpretation	Rank
1. Affordability of tuition	4.66	0.65	Very Important	2
2. Environment and culture	4.56	0.70	Very Important	3
3. Quality of education	4.83	0.52	Very Important	1

4. Scholarship	4.83	0.50	Very Important	1
5. Parent's choice	3.77	1.07	Very Important	7
6. Peer's influence	3.50	1.16	Very Important	9
7. Religious atmosphere	3.91	1.15	Very Important	6
8. Athletic opportunities	3.52	1.27	Very Important	8
9. Closeness to hometown	3.98	1.13	Very Important	5
10. Student/professor ratio	4.18	1.01	Very Important	4

Legend: 3.26-4.00 – Very Important 2.51 – 3.25 – Moderately Important 1.76-2.50 – Little Importance 1.00- 1.75 – Not Important

Table 2 presents the factors affecting the Grade 12 Students' decision to enroll in college. Data revealed that the top three factors affecting their decision to enroll in college are scholarship (\bar{x} = 4.83), quality of education (\bar{x} = 4.83), affordability of tuition (\bar{x} = 4.66), and environment and culture (\bar{x} = 4.56).

It implies that Grade 12 Students comprehended that scholarships were an approach to pay for school. Scholarships that help or cover expenses of seeking after an advanced education give various advantages to beneficiaries (Mensah, J. B., 2020). From lessening the monetary weight of the increasing expenses of an advanced degree to permitting Students additional time and energy to zero in on examinations instead of low maintenance work, scholarships are one piece in the riddle of what makes a solid establishment for supporting Students in their accomplishment in seeking after a degree, and besides, finishing that degree. According to Sherraden, M., Birkenmaier, J., & Collins, J. M. (2018), scholarships can give Students the monetary knock expected to take a jump and select a degree, just as a lift to resolve and a student's trust in their capacity to run after a superior future. Scholarships can also contribute to student success by allowing for more financial flexibility in terms of the need for Students to hold a job throughout college (Pingel, S., Parker, E., & Sisneros, L., 2016). Research findings of Alemu, A. M., & Cordier, J. (2017) show that academic and educational quality and living and support experiences influence student satisfaction. The Obama administration is committed to restoring our world leadership in college completion and ensuring that every student has access to an affordable and high-quality postsecondary education.

On the other side, Peer influence got the lowest mean of 3.50. The data is contrary to the study of Kindermann, T. A. (2016) on peer group influences on students' academic motivation. His study shows that motivated students like and enjoy learning in school, persist in academic tasks, participate in school activities, and believe that school is essential. He also added that motivated students are visible to teachers and peers. All central motivational conceptions rest on engagement and disaffection as crucial components of how motivation manifests itself in the classroom and is communicated to teachers, parents, and peers (Ng, C., Bartlett, B., & Elliott, S. N., 2018).

2. What is the respondents' decision to choose a career path before implementing the program?

Table 3. Grade 12 Students' decision to choose a career path before implementing the program

Career Path	Frequency	Percent
Find job and work	6	3%
Proceed in college	22	10%
Proceed in technical and vocational courses	2	1%
Still undecided	200	87%
Total	230	100%

Table 3 presents the Grade 12 Students' decision to choose a career path before implementing the program. Data showed that 87% of the Grade 12 SHS Students were still undecided in their career path after graduating high school. Data implies that despite the integration of the GCP in Student Success Classes, still, students were undecided in their career path.

A study by Glaessgen, T. A., MacGregor, C. J., Cornelius-White, J. H., Hornberger, R. S., & Baumann, D. M. (2018) revealed that students experience significant stress. Without individuals in their lives who can directly relate to these taxing experiences, they may not readily share their college-specific troubles (Jenkins et al., 2013). Even as pursuing a college degree presents challenges, advancing toward an unknown college degree complicates the journey to graduation (Cuseo, 2005). Students' undecided about college has been extensively researched. Schwartz, S. E., et al. (2018) found that students tend to question their possible major. Without academic goals or a clear sense of purpose, some of these undecided students leave higher education institutions without a degree (Zanden, P. J., Denessen, E., Cillessen, A. H., & Meijer, P. C., 2019).

On the contrary, Grade 12 Students have various career choices after they graduated from school. About 22% decided to go to college, followed by 3% decided to find jobs, and 1% decided to proceed in technical and vocational courses. In order to find out whether Grade 12 Students differed in their choice of career path after the implementation of the PANGANDAM Program, an independent sample T-test was run, and the results of the analysis are shown in Table 4.

4. Is there a significant difference in the respondents' decision in choosing a career path when the program was implemented?

Table 4. Grade 12 students' decision in choosing a career path when the program was implemented

Career Path	Before the implementation of program Frequency	After the implementation of program Frequency	Difference Scores Calculations Mean: 0.8 $\mu = 0$ $S^2 = SS/df = 78.8/(230-1) = 0.34$ $S^2M = S^2/N = 0.34/230 = 0$ $SM = \sqrt{S^2M} = \sqrt{0} = 0.04$ T-value Calculation $t = (M - \mu)/SM = (0.8 - 0)/0.04 = 20.68$
find job and work	6	7	
proceed in college	22	205	
proceed in technical and vocational courses	2	3	
still undecided	200	15	
Total	230	230	

Table 4 presents the significant difference in the respondents' decision in choosing a career path when the program was implemented.

As seen in the table, the value of t is 20.68, and the value of p is $< .00001$. It means that the value of p is less than the 0.05 level of significance. The results mean that the null hypothesis, which said that there is no significant difference in the respondents' decision in choosing a career path when the program was implemented, was rejected.

It can be seen in Table 3 that before the *Pangandam* program, 200 Students wanted to proceed to college, six (6) wanted to find a job, and two (2) wanted to proceed in technical and vocational courses. However, after implementing the *Pangandam* program, 205 Senior High school Students wanted to proceed to college, 15 who are still undecided, seven (7) who wanted seven to find a job, and three (3) who wanted three to proceed in technical and vocational courses.

6. Conclusion

Based on the findings in this study, the researcher has three main points as a conclusion. First, scholarship and quality of education, affordability of tuition, and environment and culture were the top three factors affecting the Grade 12 Students' decision to enroll in college. Scholarship entices a student to enroll in college since it helps students persist in their education and graduate from college. It also enables and encourages students to focus on their coursework rather than attending school part-time and working part-time jobs to finance their education. Second, despite the integration of the Guidance Career Program in Student Success Program Classes through a modular session, still, students were undecided in their career path. Third, the *Pangandam* program is an effective intervention in helping the students decide on what career path they choose when they graduate from high school.

7. Recommendations

In the light of the above conclusions, the following recommendations are made:

1. There is a need for a school to offer a scholarship for the students to proceed in college. In contrary, there is a need for the school to initiate programs which strengthens positive peer influence or human connection in student's decision in their career path as part of their motivation.
2. There is a need for Senior High School Teachers to receive extra training or professional development to work with undecided students on a career path.
3. The school initiative, which is the Pangandam program, should be sustained and monitored adequately for continuous improvement

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Special Transformation Extension Program To Uplift Personality (Step Up)

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Abstract. Arts have long been considered part of the human affective experience and as a medium for safe expression, communication, exploration and imagination. This study determined the front cause of the students' unmet achievement of learning competencies of the Special Program in the Arts (SPA) of Cagayan de Oro National High School JHS. The primary aim of the study was conducted to improve the researcher's capacity to uplift the personality of SPA students from Grade 8 to Grade 10 level by providing them art intervention sessions and helping them process the output through Focus Group Discussions (FGD). A 10-week intervention was planned and conducted to the identified students. After weeks of intervention the average grades from the first to fourth quarters were obtained. The data included observations in two phases; pre-intervention FGD responses and post intervention FGD responses. The results revealed a positive change in the students' academic performance in the SPA program's post intervention. These findings highlighted the importance of the intervention program which greatly contributed to the personality upliftment among SPA students through the arts. The essence of self-expression incorporated in the activities empowered them to know more about their inner self and feel the belongingness from their surroundings.

Keywords : uplift, intervention, child protection, FGD, SPA

1 Introduction

Every school ensures that learners are always at the center of education. After our home, our school is the place where learners are imbued with the essential concepts of life. The DepEd Order 40 series of 2012 also known as DepEd Child Protection Policy is one significant thrusts of the department that accounts the rights of the learner as a child in order to achieve the core values of being *Maka-Diyos, Makabayan, Makatao* and *Makabansa*. The policy is anchored on the belief that a child must be protected and that proper assistance must be given in all forms so as to defend them from any negligent treatment and other conditions prejudicial to their development. With this in mind, The Special Program in the Arts (SPA) of Cagayan de Oro National High School Junior High School assumes this responsibility of providing assistance to the learners by enhancing their different artistic skills such as dancing, acting, singing, playing instruments, video

editing, creative writing, and painting. However, to gain full understanding of the competencies under each of the mentioned specializations, the program also considers that the character of the learner must be shaped to cater not only the intellectual capacity of a child to survive but also to hone each one of them to become transformed individuals for holistic learning.

As much as the skills are considered, however, it has been noticed that achievement of learning competencies still remains unmet in SPA, if not by all, by some students who show poor interest at school. Although the students were assessed to have already manifested the skills and talents required for the Special Program in the Arts, the teacher-specialists and advisers have observed a significant low level of interest among students which eventually maligned their academic performance. The graphical presentation below suggests that despite the standard grade of 82 for academic subjects and 85 for specialization imposed for SPA, some students still got lower average grades during last school year 2018-2019, creating a tremendous problem in the cohort survival of SPA. Since these students will be advised to transfer to other curriculums, the enrolment percentage shall continue to diminish every school year which significantly alarmed the researchers of this study. This tells us that although SPA students are skillful in their respective specialization; their poor interest may still result in poor performance. Instances have occurred that students come to school very late and/or do not participate in class activities. In addition, the aid of anecdotal records from advisers analyzes that students who have poor ratings are those with family problems and issues such as conflict in the family, abuse in verbal or physical way, favoritism and financial problems among others. They also tend to have fewer peers which places an assumption that they do not express themselves freely and even exclude themselves from a larger group of friends.

It is notable from the above observations that needless of the curriculum implemented by the Department of Education and the skills that students possess; a better society is always shaped by individuals who are grounded with good character and emotional stability which is the backbone of good personal identification. The importance of this belief, when disregarded in schools, puts the society in general at stake. This notion spurts the STEP UP Project of the researchers who believe that arts, in general, create an impactful learning to students through a "step up" of their emotional and intellectual aspect. Various researches supports this view which regards student's music interest and participation which leads to a higher academic achievement compared to that of students who do not have interest and participation in music (Greer, 2013; Dege et al, 2011; Korfhage, 2016; Hearnberger, 2013; Davenport, 2010; LaCour, 2010; Little, 2015; Schellenberg, 2013).

Supported and validated by the aforementioned research papers, the Special Transformation Extension Program to Uplift Personality or STEP UP: an intervention program in uplifting SPA Students' morale was instigated and launched by the researchers. STEP UP is an intervention program that helps students not only to actively participate in the

activities but to also attain transformational learning for them to become empowered youths that will inculcate the significance of emotional quotient in the holistic development of a person. As arts is considered to be the basis of their enrollment in SPA, the researchers believe that is also through arts where students can have a better avenue to boost their morale, to express their thoughts and feelings and to ignite their interest towards their academic subjects and specialization. The use of creative self-expressions aligned to their passion and talent may help them to become the better version of themselves. As they continue to absorb positivity through the STEP UP intervention program, the more that they are expected to be engaged and interested in dealing life with optimism.

2 Strategy/Intervention

Before the intervention took place, the launching of the program was realized with the participation of the parents and the SPA students. The launching purposely involved the parents to gain a sense of accountability towards their children's commitment to the program and to understand the objectives of the study. Personality, as one important aspect in becoming an effective artist, is one highlight that was discussed to the student-participants. The intervention ran in a series of sessions for one hour three times a week for ten (10) weeks. Each session, the students were provided with activities according to the objectives of the intervention. The sessions included songwriting about their life or inner self, dancing a song that relates to their personality and acting reflective of their own story background. In this way, the students were encouraged to self-expression without neglecting their passion and skills. This somehow developed their intrinsic motivation to feel valued and worthy as a person. Aside from that, we also awarded them with certificates as extrinsic motivation to recognize their efforts and excellence after the 10-week intervention. Since the yearly recital of the SPA is yet to be showcased in February, we invited the parents and teachers during the orientation as the audience of the show. The SPA teachers believe that the participation of important people will greatly increase students' intrinsic motivation to accomplish their task with confidence and thus, helps them become more responsible and emotionally stable. Since the factor that bordered poor ratings among students is family problems, we really make sure that they will be present in the activity to witness their child's performance.

3 Research Questions

This study sought to find answers to the following questions:

1. What are the reasons behind the poor ratings of SPA students?
2. How does the STEP UP Intervention boost up students' personality and interest in school?

3. How does the intervention help students to express themselves and attain emotional stability?

4 Scope and Limitations

This study mainly focused on the Project STEP UP intervention program for the students of the Special Program in the Arts (SPA). The target participants of this study were those who got an average grade of 85 and below from the previous school year (2018-2019). In addition, the students were identified to have problems at home, specifically mentioning those having conflict in the family, abuse in verbal or physical way, favoritism and financial problems among others. The sections involved were from Grade 8 Elizalde and Edades, Grade 9 Dela Rama and De Leon and Grade 10 Cabrera and Celerio of the School Year 2019 – 2020. Grade 7 level was not included in the study because they have not yet established a track record. For the sessions, dance arts, music instruments and theater arts were the only disciplines covered as researchers, who are the specialists to these areas.

5 Research Methods

The descriptive and quantitative methods were utilized in the study to analyze the data and answer the questions raised. Specifically, the descriptive method was essential in expounding the learning performance of students with poor interest in academics. The researchers took 10 weeks in the planning and implementation of intervention to students. Similarly, a quantitative method was considered important to establish an accurate numerical presentation of results before and after the intervention took place.

5.1 Sampling

This study employed purposive sampling in choosing the participants. Black (2010) defined purposive sampling as a non-probability sampling method used to identify participants for the study according to the judgment and purpose of the researcher. In this case, we chose students with poor interest and low average grades from the previous school year (2018-2019), due to home problems as the participants to the study.

5.2 Data Analysis

This study employed a quantitative-descriptive method in analyzing the data. As to the Project STEP UP intervention program implemented, the quantitative-descriptive analyzed the numerical data taken from the First to Fourth Quarter grades of students and described the positive effect that the intervention has brought to uplift the morale and boost up the interest of the participants.

6 Results and Discussion

This study assessed the effectiveness of the Project STEP UP intervention program in addressing the notable poor academic performance among SPA students which resulted in poor ratings across academic subjects and specializations.

What are the reasons behind the poor ratings of SPA students?

As shown in Table 1, the students only reached the minimum grade requirement last school year 2018-2019 which heightened the assumption of the researchers that a recurring problem is hampering their scholastic achievements.

Table 1. General Average Grade of Students last School Year 2018-2019

STUDENT PARTICIPANT	General Average 2018-2019
Student 1	84
Student 2	83
Student 3	82
Student 4	85
Student 5	84
Student 6	82
Student 7	83
Student 8	84
Student 9	84
Student 10	83
Student 11	80
Student 12	84
AVERAGE	83

According to DepEd Order No. 36, s. 2016 known as Policy Guidelines on Awards and Recognition, every student of Special Program in the Arts must be able to attain at least a general average of 82 in which our participants have the alarming tendency to fail. As reflected, their general average grades only range from 80-85. This data set the

researchers to conduct the STEP UP intervention program in order to determine the problems that might have affected students' performance and address their needs.

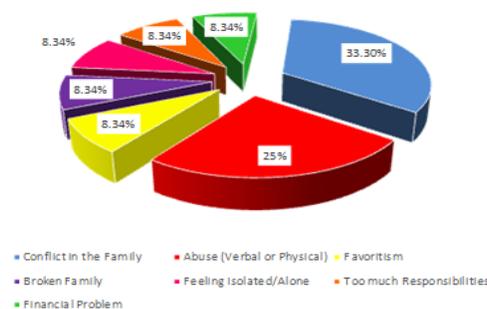


Figure 1. The Reasons Behind Students' Low Academic Performance

In addition, it was found out that the participants suffered from problems outside the school that affected their academic performance. We categorized these reasons in relation to the participants' responses during the pre-intervention FGD.

Figure 1 suggests that among the reasons, conflict in the family places the highest percentage (33.30%). This means that the participants felt unmotivated from participating in school because they are affected from the conflict in their homes. In one response to the question, “Unsa kaha ang mga rason niini?”, a participant said that his parents are constantly nagging him and disappointing him saying, “Wala kay pulos”. This statement embittered him and lost his confidence because at the end of the day, his parents are not appreciative of his work.

How does the STEP UP intervention boost up a student's personality and interest in school?

After the implementation of PROJECT STEP UP, a considerable increase of the average is observed. This implies that the PROJECT STEP UP is effective to the students because they have become responsive and aware of their personal responsibility and interest in school. This can be supported in the study of Sabol (2014) who cited that arts education promotes some benefits in a variety of ways as such developing the students' imagination and creativity; allowing them to understand and express their feelings and ideas; supporting them in the decision –making and in solving problems; and in developing values such as concentration and persistence which are accountable for since the noteworthiness of the intervention program belong in the minds and hearts of lifelong learners.

Table 2. SPECIAL PROGRAM IN THE ARTS (SPA) CURRICULUM LIST OF

PARTICIPANTS AND THEIR FIRST AND FOURTH QUARTER GRADES

STUDENT PARTICIPANT	1 st Quarter Average 2019-2020	4 th Quarter Average 2019-2020
Student 1	86	88
Student 2	84	87
Student 3	84	87
Student 4	89	93
Student 5	85	90
Student 6	84	89
Student 7	85	90
Student 8	89	92
Student 9	84	89
Student 10	84	88
Student 11	83	88
Student 12	86	89
AVERAGE	85	89.16

Further, the data shows that the Fourth Quarter grades of the student-respondents are way higher compared to their grades in the First Quarter. Student 1, for example, got a grade of 88 which is a 2-point increase from the First Quarter rating, while others also exhibited a similar pattern of increase across the quarter. This denotes that by continuously meeting the students and providing them with STEP UP interventions, failure in their academic subjects can be prevented.

How does the intervention help students to express themselves and attain emotional stability?

The intervention created by the researchers helped the students to be more open, not just with their family but also to their classmates and friends. With the three main disciplines offered in Project: STEP UP, Music, Dance Arts, and Theater Arts, the students became more sensitive to the people around them and it helped them realize that everyone is

facing different kinds of problems. The activities in Music helped them acknowledge their feelings which they tend to hide from within because they fear the people's opinions. The Dance Art discipline helped the students to express through kinesthetic movements. Lastly, the Theater Arts discipline sums up all the previous activities that the students have done in the previous sessions with Music and Dance Arts.

7 Conclusions

It can be concluded that holistic learning does not only follow the paradigm of intellectual intelligence, the emotional state of a learner must also be taken into consideration. With proper assistance and care of concerned individuals to improve this aspect, our goal to form a better society can be realized. As it is inevitable to face challenges in this modern generation, the school always plays a significant role to bring transformational learning to the learners who are vulnerable to surrounding threats, may it be from family or from the community. The Child Protection Policy sees this importance through the rights of a child in which we, as the researchers, focused to study. The STEP UP intervention program greatly contributed to the personality upliftment among SPA students through the arts. The essence of self-expression incorporated in the activities provided for them empowered them to become strong individuals and youths who know their inner self and feel the belongingness from their surroundings. This study convinces us that STEP UP is not only a mere identification of students with family problems and brings solution to it but is also a tool of empowerment to develop artistic abilities. Once the learner knows how to express himself, the more his skills are ignited and developed. This is shown in the sessions where the participants opened up themselves to others through singing, dancing, and acting later on found comfort from it and learned that life is more meaningful. The last session which required them to collaborate with other specializations, learn about the positivity of life, and help them to cooperate with others which is needed in becoming future responsible citizens. Overall, the STEP UP draws the importance of arts as a solution to this one big challenge amongst our children. The program proves that arts should not only be an avenue for skill development but should also be a tool to shape the emotional quotient of an individual.

8 Recommendations

Given our drive and effort to come up with this kind of study, it is a privilege to lay down suggestions and recommendations that will help our fellow teachers to address the needs of our learners, especially those who have been deprived from their basic need--the love and care. Although considered to be multi-factor related, we specifically addressed the need to uplift their personality because it is one way for students to express themselves and feel a sense of belongingness in school. According to Maslow's hierarchy of needs, a person must meet his basic needs such as physiological, safety, love and belonging, esteem and self-actualization for him to be successful in life. Thus, we suggest that intervention as STEP UP should not only stop as a research perspective but should be

a continuous program for the Special Program in the Arts and hopefully, for other curriculums who have found the same alarming dilemma in student learning. Aside from being reinforcement to skills development, activities incorporating arts should also be a tool for self-expression in order to create a safer environment. Hence, it is recommended that STEP UP should be done on a monthly basis to sustain the effectiveness of the program.

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Assessment of Students' Participation in Sports on School Connectedness in Bulihan Integrated National High School: Basis for Sports Development Program

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Abstract. School connectedness is the feeling of closeness to school personnel and the school environment. The purpose of the study was to determine the relationship between sports participation and school connectedness among secondary school students in Bulihan Integrated National High School. The study intended to establish the effects of gender, age and athletic status on school connectedness. The study employed a descriptive survey design. The study employed stratified random sampling using Slovin's formula to select 373 students. The study used an adopted survey-questionnaire to collect data. Data that was collected and was analyzed using inferential and descriptive statistics. Descriptive statistics that were used included frequencies, percentages, means and standard deviations whereas inferential statistics used included two-way ANOVA and T-test. The results were presented in frequency tables. The study established that there were no significant differences in school connectedness between boys and girls, $t(340) = .647$, $p = .518$ at $\alpha = 0.05$. The study also established that younger athletes ($\bar{x} = 86.13 \pm 1.35$) and non-athletes ($\bar{x} = 87.67 \pm 2.37$) were more connected to their schools compared to older athletes ($\bar{x} = 85.57 \pm 1.91$) and non-athletes ($\bar{x} = 85.00 \pm 2.000$). This means that there was a significant difference in school connectedness and age of the athletes. The study recommends the implementation of the Sports Development Program: a three-year program that is composed of three (3) sports development program for students namely I.Sports Program, Sports Awareness Program and We Love Sports Program.

Keywords: Sports Participation, School Connectedness, Sports Development Program

I. CONTEXT/RATIONALE

School connectedness is the psychological state of belonging in which individual students perceive that they and other students are well taken care of, trusted, and appreciated by a group of adults (Whitlock, 2016). School connectedness enable students to involve themselves in meaningful activities when in school and when out of school. Connected students are guarded against violence, risky sexual behavior, and school dropout rate as well as drug abuse. Similarly, in an article published by U.S. Department of Health and Human Services (2018), school connectedness is an important factor in both health and learning.

Several studies have shown that participation in cocurricular activities promote school connectedness. For instance, McNeely et. al. (2016) explored the impact of co-curricular

activity involvement on a student's school connectedness in the United States and established that with an increase in student's participation in sports and other co-curricular activities measured to an equal increase in student's connectedness to school. Similar findings reported by Gilman (2018) were that participants who were involved in Structured Co-curricular Activities (SEAs) had significantly higher school satisfaction than adolescents with minimal or no participation in such activities. Rouse-Gordon (2017) stated that participation in co-curricular activity make students more resilient to adverse experiences and stressful life variables. He further concluded that co-curricular activities play a bonding role and help students learn important skills to function socially. These past studies show that students' participation in sports could enhance school connectedness.

Bulihan Integrated National High School is the biggest secondary school in Silang, Cavite in terms of student's population and top performer in sports in different competition level. The researcher observed that participation in sports sees as a reason for some students to remain in school; involvement in sports gives these students a means of achieving recognition and status, which leads to higher academic aspirations and school commitment. Researcher believed that sports can be a great way for the students to feel trusted, appreciated and feel connected to the school.

THEORETICAL FRAMEWORK

Astin's (2016) Involvement Theory

The theory defines the quantity of physical, mental, and emotional energy that students dedicate to any education program. The Theory provides a theoretical basis for investigating student involvement in the education experience. Active participation in academic and other co-curricular activities and especially competitive sports is highly related to student learning and their physical and mental development. The basic principle of Astin's involvement theory is that educational experience ought to be considered in a wide sense that encompasses both classrooms learning for academic performance and out-of-class experiences for physical and psychological development.

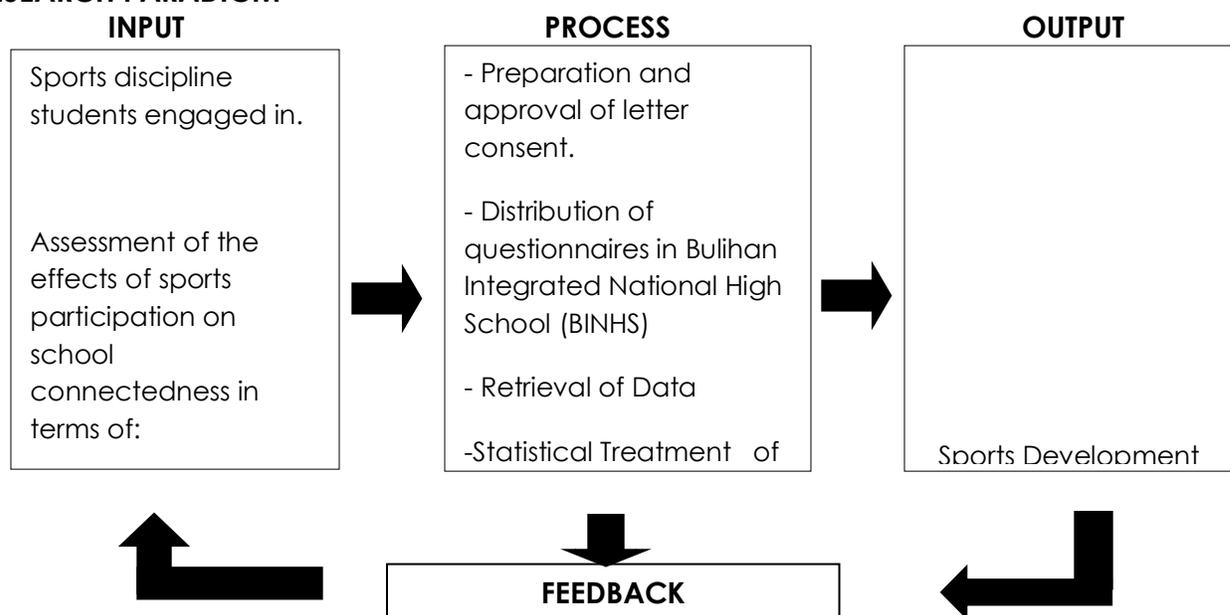
STATEMENT OF THE PROBLEM

This study is to assess the effects of students' participation in sports on school connectedness in Bulihan Integrated National High School.

Specifically, the study sought answers to the following questions:

1. In what sports discipline students engaged in?
2. What is the effect of sports participation on school connectedness in terms of:
 - 2.1. gender;
 - 2.2. age; and
 - 2.3. athletic status
3. Is there significant mean difference between school connectedness of male/female athletes and male/female non-athletes?
4. Is there significant mean difference between school connectedness among athletes and non-athletes of different age groups?
5. Based on the findings, what sports program may be developed to enhance students' school connectedness?

RESEARCH PARADIGM



HYPOTHESES

- There is no significant mean difference between school connectedness of male/female athletes and male/female non-athletes.
- There is no significant mean difference between school connectedness among athletes and non-athletes of different age groups.

SIGNIFICANCE OF THE STUDY

This study sought to assess the effect of participation in sports on school connectedness among secondary school students. The findings are significant not only to students but also to teachers, curriculum planners, parents, and educators as they provide an empirical data on importance of sports to teachers upon which to base their future judgements and decisions. The findings may also assist school administrators in making policies on using facilities and equipment to improve students' participation in sports. This will help to promote a sense of belonging to schools and eventually control indiscipline. The study found out that there is a strong relationship between participation in sports and school connectedness.

II. RESEARCH METHOD

Research Design

This study employed the descriptive method of research. According to Jackson (2018), in survey descriptive method of research, participants answer questions administered through survey-questionnaires. After respondents answer the questions, researchers describe the responses given. For the survey to be both reliable and valid it is important that the questions are constructed properly. Questions should be written so they are clear and easy to comprehend.

Participants

The respondents of the study were the students from Grade 7, 8, 9 and 10 in Bulihan National High School. The researcher will utilize stratified random sampling. According to Carague et al. (2018) stratified random sampling can be preferred for two reasons: firstly, it certifies that the sample is representative not only of population but also particular sub-populations. Secondly, stratified random sampling showcases a higher statistical precision than simple random sampling.

It will be taken from population using stratified random sampling at 5% error of tolerance. The sample size will be determined with the use of Slovin's formula:

Table 2.1. Population and Respondents

Grade Level	Population	Percentage	Sample
Grade 7	1570	28	104
Grade 8	1389	25	93
Grade 9	1351	25	93
Grade 10	1232	22	83
Total:	5542	100	373

Research Tool

This study utilized the adopted survey-questionnaire of Libbey, H. P. (2016) on her study entitled "Measuring Student Relationships to School: Attachment, Bonding, Connectedness and Engagement" as the main tool for data collection. The questionnaire was divided into three sections. Section A captured demographic information on students. Section B captured data on sports participation. Section C gathered information on school connectedness which contained 5-point Likert scale questions of strongly agree, agree, undecided, disagree and strongly disagree which were scored as 5, 4, 3, 2 and 1, respectively.

Data Gathering Procedures

Pilot Study

Before the study was conducted, pre-testing of questionnaires was carried out in two schools in Silang Cavite, which were not included in the main study. Thirty students participated in the pilot study. The objective of the pre-testing was to determine reliability and validity of the questionnaires by ironing out any ambiguities that were found in the questionnaire. The pre-testing also helped the researcher to familiarize herself with data collection process.

Data Collection

The researcher secured permission from the Schools Division Superintendent (SDS) to conduct the study in Bulihan Integrated National High School Silang, Cavite. The participants were given instructions and assured of confidentiality following the data privacy act of 2012 after which they were given enough time to fill in the questionnaires.

STATISTICAL ANALYSIS OF DATA

Descriptive statistics that were used included frequency counts, percentages, means and standard deviations. The effects of participation in sports on school connectedness were compared using Two Way ANOVA (Analysis of Variance) to test difference in means between two or more variables. T-test was also used to test gender differences on school connectedness. The hypotheses were tested at p 0.05 level of significance.

III. RESULTS AND DISCUSSIONS

1. In what sports discipline students engaged in?

Table 3.1 Frequency and Percentage Distribution of Sports Participated by the Students

SPORTS	F	%
Basketball	92	25
Volleyball	75	20
Badminton	99	27
Table Tennis	46	12
Scrabble	20	5
Lawn Tennis	23	6
Chess	18	5
Total	373	100%

Table 3.1 shows that the participants, 99 (27%) played badminton followed by basketball, 92(25%), volleyball were 75(20%), table tennis 46(12%), lawn tennis 23(6%), while those who participated in chess and scrabble were the least 20, 18 (5%) each. Bulihan Integrated National High School provided facilities and equipment for badminton, basketball, volleyball table tennis and lawn tennis. This agrees with Mwhaki (2017) who reported that availability of sports facilities and equipment has a great impact on students' participation in sports activities. Chess and scrabble are indoor sports and the school lacked indoor space for participation. This could have attribute to lack of enough capital as putting up indoor facilities requires finances (Njororai, 2018). In addition, these games are not available in most primary schools where the foundation of sports is laid.

- 2. What is the effect of sports participation on school connectedness in terms of:**
2.1. gender;
2.2. age; and
2.3. athletic status

Table 3.2. Descriptive Statistics on Gender, Athletic Status on School Connectedness

Gender	School Connectedness					
	Athletes		Non-Athletes		Total	
	Mean	Std. dev	Mean	Std. dev	Mean	Std. dev
Male	86.98	1.817	86.24	1.923	85.57	1.966
Female	85.85	1.455	84.95	2.012	85.43	1.891

Total	86.42	1.727	85.6	2.052	85.5	
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Table 3.2 It can be observed from that the male athletes had a higher mean value on school connectedness ($\bar{x} = 86.98 \pm 1.817$) than the male non-athletes ($\bar{x} = 86.24 \pm 1.923$). In addition, the female athletes had higher mean scores for school connectedness ($\bar{x} = 85.85 \pm 1.455$) than the non-athletic girls ($\bar{x} = 84.95 \pm 2.012$). Also, the male had a higher mean score for school connectedness ($\bar{x} = 85.57 \pm 1.966$) than the female ($\bar{x} = 85.43 \pm 1.891$). The table also shows that the athletes had a higher score for school connectedness ($\bar{x} = 85.73 \pm 1.727$) than the non-athletes ($\bar{x} = 85.32 \pm 2.052$).

Table 3.3 Descriptive Statistics on Gender, Athletic Status on School Connectedness

Athletic Status	Age	N	School Connectedness	
			\bar{x}	SD
Athlete	13	25	86.13	1.35
	14	95	85.25	1.49
	15	75	86.10	1.64
	16	14	85.57	1.91
	17	1	86.00	0.00
	Total	210	85.81	1.73
Non-Athlete	13	6	87.67	2.37
	14	74	85.24	2.08
	15	63	84.94	2.01
	16	14	85.57	1.95
	17	6	85.00	2.00
	Total	163	85.68	2.05
Total	13	31	87.19	1.81
	14	169	85.31	1.80
	15	138	85.43	1.89
	16	28	85.57	1.89
	17	7	85.86	1.86
	Total	373	85.87	1.89

Table 3.3 shows that the athletes of age 14 years had the highest mean score on school connectedness ($\bar{x} = 86.13 \pm 1.35$), followed by those athletes of age 15 years ($\bar{x} = 86.10 \pm 1.64$) and then athletes of age 13 years ($\bar{x} = 86.00 \pm 0.00$). Those athletes of age 16 years ($\bar{x} = 85.57 \pm 1.91$) and those of age 17 years ($\bar{x} = 85.25 \pm 1.489$) were least connected to their school. Further, the same table shows that the non-athletes of age 14 years had the highest mean score on school connectedness ($\bar{x} = 87.67 \pm 2.37$), followed by those non-athletes of age 16 years ($\bar{x} = 85.57 \pm 1.95$) and then non-athletes of age 14 years ($\bar{x} = 85.24 \pm 2.08$). Non-athletes of age 17 years ($\bar{x} = 85.00 \pm 2.000$) and those athlete of age 15 years were least connected to their school ($\bar{x} = 84.94 \pm 2.014$). In addition, the athletes had a higher score ($\bar{x} = 85.73 \pm 1.73$) than non-athletes ($\bar{x} = 85.32 \pm 2.05$). This implies that younger athletes and non athletes were more connected to their schools compared to older athletes and non athletes.

3. Is there significant mean difference between school connectedness of male/female athletes and male/female non-athletes?

Table 3.2. Summary of the T-tests on the Effects on Gender,

Athletic Status on School Connectedness

Gender	N	\bar{x}	t-test for equality means		
			T	Df	Sig (t-tailed)
Male	215	85.57	.647	340	.518
Female	158	85.43			

Table 3.2 shows that there was no statistically significant difference in the mean score of school connectedness between the boys and girls $t(340) = .647, p = .518$ at 0.05. This shows that both male and female students felt connected while at school in relation to participation in sports. The first null hypothesis (H_{01}) of the study was therefore accepted and a conclusion made that there is no significant mean difference between school connectedness of male/female athletes and male/female non-athletes in Bulihan Integrated National High School. Conversely, the findings of Bonnney, et al. (2017) found out that boys had a higher feeling of connectedness compared to girls. This study concluded that male athletes were more connected to school compared to female athletes and in general athletes were more connected than non-athletes.

4. Is there significant mean difference between school connectedness among athletes and non-athletes of different age groups?

Table 3.3. Summary of the Two-Way ANOVA Between-Subjects Effects on Age, Athletic Status on School Connectedness

Sources	SS	Df	MS	F	Sig
Age	35.504	4	8.876	2.700	.031*
Athletic Status	.246	1	.246	.75	.785
Age and Athletic Status	42.030	4	10.506	3.197	.013*
Error	1091.255	364	3.287		
Total	1169.035	373			

*Significant at $p < 0.05$ level

Table 3.3 shows that there is a significant difference in mean score of school connectedness between ages, $F(4,333) = 2.700, p = .031$ at $\alpha = .05$. It also shows that there is no significant difference in the mean score of school connectedness based on athletic status of the students. It also shows that a statistically significant interaction between the effects of age and athletic status on school connectedness $F(4,333) = 3.197, p = .013$. The results of the analysis also revealed that majority of the students who were connected to school were aged between 15 and 17 years. Darling et.al (2017) argues that older students are likely to be involved in other co-curricular activities apart from sports than the younger student.

5. Based on the findings, what sports program may be developed to enhance students' school connectedness?

A program entitled "**Sports Development Program**" for students to motivate and continue their study through sports connectedness in school. It is a three-year program that is composed of three (3) sports development program for students.

I.Sports Program which serves to provide school the information of their students about their specialized sports.

Sports Awareness Program through these program, the teachers will be aware on

the importance of sports on school connectedness to make the students stay in school and maintain their academic performance.

We Love Sports Program which serves to build harmonious relationship through sports by conducting sports league that engage selected students, teachers and the community in creating a positive and productive relationship.

Conclusions

Based on the findings of the study the following conclusions were made:

1. Participants played badminton followed by basketball, volleyball, table tennis, lawn tennis, while those who participated in chess and scrabble were the least.
2. There was no significant difference in the mean score of school connectedness between the boys and girls. This implies that both male and female students felt connected while at school in relation to participation in sports.
3. Younger athletes and non athletes were more connected to their schools compared to older athletes and non athletes.

Recommendations

On the account of the salient findings and conclusions of the study, the following recommendations are suggested:

1. Sports activity should be strengthened and must be meaningful to the students and teachers which is very essential when building a positive school environment.
2. School administrators, teachers and students should be well oriented, or the services offered by the school in terms of school connectedness in sports and its functions that rendering to school populace.
3. Strengthened school connectedness through Sports Development Program by the school to minimize school leavers and absences among students.
4. Invite and involves LGU officials, stakeholders, and community to participate in the planning and conducting sports development program.
5. Continuous sports awareness among teachers through trainings, seminars, and workshops that is the essentials of sports activity in life.
6. Proper implementation of the sports development program, as proposed by the researcher.

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Learner's Roadmap (Loving Every Amiable Reader in the New normal of Education through Reading by zone)

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Abstract. This study was administered to improve the reading literacy of the Grade One learners at this time of pandemic. The participants of this research were the twenty (20) learners of Grade One Mercy of Sta. Ana Elementary School, Tagoloan, Misamis Oriental, who had reading difficulties based from the reading assessment conducted. Descriptive research design utilizing purposive sampling was applied. An interview questionnaire applying four-point Likert Scale was used. Frequency, percentage, and mean were the statistical tools employed in tabulating the result. The result showed that learners strongly agree that they faced high level of difficulty in reading, which means learners were struggling in recognizing letter names, producing letter sounds, and reading familiar words. Result also divulged that learners agreed that the innovation, "Learner's Roadmap" was effective in improving their reading skills. A comparative result of pre-test and post-test disclosed an increase on the number of the Grade One Mercy pupils who can identify letter names, produce letter sounds, and read familiar words. Based from the findings, the researcher concluded that reading can be improved through employing "Learner's Roadmap." The researcher recommends that the program should be implemented to all non-reader learners of Sta. Ana Elementary School, Tagoloan, Misamis Oriental.

Keywords: Learner's Roadmap, new normal, familiar words, letters, non-reader

1. Context and Rationale

It is an unarguable truth that the ability to read is one of the most essential skills a person must have (Hariyati, et. al, 2019). An individual who cannot read has nowhere to go whether in his or her personal life or his or her academic endeavor. If the inability to read of the populace will continue, society will eventually go into a decline. Grade One level pupils are expected to have learned how to read especially the MTB-MLE. During this New Normal, where face-to-face classes are not allowed, the Grade One pupils belong to one of the most affected grade levels in our education system, chiefly those who are considered in the seams of society. They do not have the financial capability to buy gadgets, to pay for internet connection, and to acquire cellular phones. This scenario was also true to the majority of the Grade One Mercy pupils, where majority of them could only identify few of the letters of the alphabet and produce letter sounds. Thus,

many of them did not know how to read. It was because of this dilemma that the researcher sought to give solutions.

Numerous experts have provided different definitions of reading. According to Nordquist (2019) reading is the process whereby a mind, with nothing to operate on but the symbols of the readable matter, and with no help from outside, elevates itself by the power of its own operations. While Florendo (2017) defined reading as a complex process that requires a great deal of active participation on the part of the reader. Reading is being able to interpret written symbols and understand printed material (Johnson, 2017).

To show the importance of reading skills, the Department of Education issued an order called "Guidelines of the 2017 Every Child a Reader Program Funds for the Early Language, Literacy, and Numeracy Program: Professional Development Component. It states that the program aims to develop Filipino children the literacy and numeracy skills, and attitudes, which will contribute to lifelong learning (D.O 18, s. 2017).

2. Action Research Questions

This study aimed to give solution to the problem of the twenty (20) non-readers of Grade One Mercy pupils of Sta. Ana Elementary School, Sta. Ana, Tagoloan, Misamis Oriental. Specifically, it sought to answer the following questions:

1. What are the causes of the inability to read of the Grade One Mercy pupils?
2. What is the level of perception on the effectiveness of the intervention to the learners' reading performance?
3. Is there an improvement of the reading performance of the participants after the use of the intervention?

3. Innovation, Intervention, and Strategy

The main problem in this study was the inability to read MTB-MLE of the twenty (20) Grade One Mercy students of Sta. Ana Elementary School, Sta. Ana, Tagoloan, Misamis Oriental. This served as the basis for the implementation of the Learner's Road Map research.

Since face to face classes were not allowed in the New Normal, the researcher opted to do a small zonal learning cell instead, for the twenty (20) non-readers in her advisory. This was done by identifying the non-readers from the same zone (zones 1 to 7) of Barangay Sta. Ana, Tagoloan, Misamis Oriental. The participants who live in the same zone were considered as one (1) small zonal learning cell. The researcher then conducted a small zonal learning cell in those respected zones.

Twice a week, for every identified zone, the researcher met with her learners in an agreed place. The researcher then spent one (1) hour of teaching-learning reading per zone for two (2) consecutive days. The researcher used the Phonetic way of reading. The researcher introduced the names and sounds of the letters. She also flashed objects and let pupils identify the initial sound. The researcher taught pupils to blend the sound into syllables then making three letter words and finally into four letter words. Two or three letter sounds of the alphabet were introduced every day. The researcher also prepared

worksheets and flash cards for each meeting. When the classes were over, the researcher also furnished each participant the very same flash cards she was using. That was to help pupils review the words they learned that week. The following week, those participants who were able to read the flash cards taught the previous week were given small rewards. This was to encourage learners to pursue acquiring the reading skills. The researcher made sure that minimum health protocols were observed at all times.

4. Action Research Methods

The main participants for this study were the twenty (20) Grade One Mercy students who were none readers. Parents/guardians also played a role in following up their children at home.

4.1 Participants and/or other Sources of Data and Information

The key participants of this study were the twenty (20) Grade One Mercy pupils of Sta. Ana Elementary School, Sta. Ana, Tagoloan, Misamis Oriental. They were selected through a pre-test for the whole section conducted by the researcher. Those who scored below seventy-five percent will be included in the study.

4.2 Data Gathering Methods

Before commencing this study, proper entry protocol was adhered to. The EGRA-ARATA reading assessment tool was utilized as the basis of learners' reading performance. Purposive sampling was used by the researcher and selected all the identified learners who were non-readers as participants of this study. Prior to the conduct of the intervention, a letter to the local IATF channeled through the school DRRM was first obtained. A copy of the approved letter signed by the division superintendent was given to each of the parent/guardian of the participants. The researcher asked consent from the parents of the participants by having them signed a "Parent Consent." The researcher assured the parents and the participants of the confidentiality of the data that were gathered.

After the reading assessment, an interview questionnaire applying four-point Likert Scale was used in determining the causes of the inability to read of the Grade One Mercy pupils. When a three and a half (3 ½) months implementation of the intervention of Learner's Roadmap was over, a post interview and post-test were given to the participants to evaluate the level of effectiveness of the study. Throughout the conduct of this study, the researcher made sure that the minimum standard health protocol was observed at all times.

4.3 Data Analysis Plan

Descriptive-Statistics was employed in this study for the statistical treatment of data. For the first problem about the causes of the reading inability of the twenty (20) Grade One Mercy students, the data were treated using frequency count and percentage. For the second research question about learners' perception on the of effectiveness of the intervention to the twenty (20) Grade One Mercy pupils, the researcher employed

frequency count and weighted mean for data treatment. Finally, for the third problem a tabulated comparative pre-test and post-test was presented. The researcher used of frequency, percentage, and mean were employed in the statistical treatment of data.

5. Discussion of Result

1. What are the causes of the inability to read of the Grade One Mercy pupils?

Table 1. Mean level of causes of inability to read of the participants

Indicators	Mean	Interpretation	Level of Inability
1. I do not like to read.	3.557	Strongly Agree	High
2. My mother/guardian does not teach me how to read.	3.589	Strongly Agree	High
3. My mother/guardian is easily irritated when she/he teaches me to read and I do not able to get it right away.	3.461	Strongly Agree	High
4. I want my teacher to teach me how to read.	3.712	Strongly Agree	High
5. I do not have any reading materials at home.	3.690	Strongly Agree	High
Mean level of causes of inability to read	3.601	Strongly Agree	High

Legend: 3.26-4.00 - Strongly Agree 2.51 – 3.25 - Agree
 1.76- 2.50 - Disagree 1.00- 1.75 - Strongly Disagree

Table 2 presented the mean level of the causes of the inability of the participants to read. The result revealed that on the average, the participants Strongly Agree that they faced a high difficulty in reading with the average total mean of (\bar{x} =3.601). This means that they experience extreme hardship in learning how to read. The indicator with the highest mean was the “I want my teacher to teach me how to read” with a mean of (\bar{x} =3.690).

This signifies that the participants desired to have their teacher teach them face-to-face how to read even in this pandemic time. This means that the role of teachers as the reading instructors still held a big significance to the learners. The table further showed that the absence of reading materials in the houses of the participants contributed a lot in their inability to read with the mean of (\bar{x} =3.690).

1. What is the level of perceptions on the effectiveness of the intervention to the learners reading performance?

Table 2. Level of Effectiveness Perceived by Learners using the Intervention

Indicators	Mean	Interpretation	Level of Effectiveness
1. I was able to identify all the letters of the alphabet.	3.643	Strongly Agree	High
2. I was able to produce sounds of all the letters of the alphabet.	3.585	Strongly Agree	High
3. I was able to read familiar words.	3.479	Strongly Agree	High
4. I love it having my teacher teach me how to read face-to-face.	3.742	Strongly Agree	High
Mean Level of Perception	3.612	Strongly Agree	High

Table 2 presented the Mean level of participants' perception of effectiveness of the intervention. The results revealed that on the average, the participants Strongly Agree that Leaner's Roadmap had greatly helped them in learning how to read with the average total mean of (\bar{x} =3.612). The indicator with the highest mean was the "I love it having my teacher teach me how to read face-to-face" with a mean of (\bar{x} =3.742). This implied that the long months of not seeing their teacher because of the pandemic made them appreciate and realize the value of having a teacher.

2. Is there an improvement of the reading performance of the participants after the use of the intervention?

Table 3. Comparative result of participants reading performance

Components	Pre-test		Post-test	
	Frequency	Percentage	Frequency	Percentage
Letter Name Knowledge	15	75%	0	0%
Letter Sound Knowledge	2	10%	1	5%
Initial Sound Identification	3	15%	2	10%
Familiar Word Reading	0	0%	17	85%
Total	20	100%	20	100%

Legend:

- a. Letter Sound Knowledge - Measures knowledge of letter-sound correspondences (Dubeck and Gove, 2015)
- b. Initial Sound Identification - Measures the ability to discriminate beginning sounds (Dubeck and Gove, 2015)
- c. Familiar Word Reading - Measures the ability to identify individual words from grade-level text (Dubeck and Gove, 2015)

The result showed a decrease in number of non-readers from pre-test to post-test. It was evident that seventeen (17) out of twenty (20) of the participants who were not able to read familiar words were now had the ability to read. In the post test, only three (3) of the learners were still struggling to read familiar words. The high percentage of participants who were able to read familiar words proved that the intervention helped greatly in the improvement of their reading performance. The remaining three (3) who were still struggling to read familiar words remain to be the focus of the intervention. Continuous reading sessions by the researcher were done to improve their reading performance.

6. Conclusion

Based on the study, the researcher conclude that the inability to read of the participants could be improved through the Learner's Roadmap intervention. With the small zonal learning cell, providing of flash cards, and giving of small rewards, the reading difficulties could be minimized. Thus, this research should be continued and properly monitored for continuous improvement.

7. Recommendations

In the light of the above conclusion, the following recommendations were made:

- 1 Based on the findings gathered, it is recommended that the intervention should be used in all grade levels with non-readers at Sta. Ana Elementary School.
- 2 When adapting the Learner's Roadmap, it is highly recommended that minimum health protocols should be observed at all times.

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Implementation of K-ASER Tool in Mother Tongue-Based Education for Kindergarten in the Division of Cagayan de Oro City

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Abstract. This research study was conducted to strengthen the implementation of K-ASER tool written in mother-tongue in assessing the Kindergarten learners to increase their reading performance level in the Division of Cagayan de Oro City. It also aimed the used of K-ASER Tool in increasing the reading performance of a Kindergarten learners. Participants were 8,552 Kindergarten learners, 8,552 parents were included and 269 Kindergarten teachers. Based on ASER Result SY 2020-2021 in the beginning using the existing reading assessment tool, 2,543 or 29.73% out of 8,552 learners falls in the Beginning level, 2012 or 23.52% only out of 8,552 learners falls in the Letter level, 1700 or 19.97% only out of 8,552 falls in the Word Level, 1500 or 17.53% out of 8,552 only falls on Paragraph Level and 797 or 9.31% only out of 8552 in Story Level. This data alarmed the teacher and looked for a solution. The reasons for this problem were analyzed and verified through the use of triangulation method-focused group discussion, observation and survey. The results indicated the need of a reading assessment tool that is written in mother-tongue that suits to the learners need. K-ASER Tool was introduced as a reading assessment tool written in mother-tongue. It has four reading stimulus, Letter Level, Word Level, Paragraph Level and Story Level all of this were written in mother-tongue. After weeks of implementation a positive result was generated. Recommendations include that K-ASER should be implemented in the whole Division of Cagayan de Oro City as a reading assessment tool for Kindergarten Learners.

Keywords: K-ASER, MTB-Kinder Reading Assess Tool, Kinder Reading Tool

I. RESULTS AND DISCUSSION

- How did K-ASER of tool intervention aid the teachers in assessing the reading performance level of a Kindergarten learners?

Reasons of teaches	Total No. of Teachers	Frequency	Percent age
booklet type	269	269	100%
words written were carefully chosen	269	250	92%
written in mother-tongue	269	269	100%
Replicable because soft copy were given	269	255	95%
Parents friendly	269	269	100%
Cost-effective	269	258	95%

Figure 1 showed the frequency and percentage on teacher's reason on how this intervention tool aid the teacher based on the survey questionnaire given, wherein in booklet type got 269 out of 269 or 100% percent, words written were carefully chosen got 250 out of 269 or 92 %, replicable because soft copy were given also got 269 out 269 or 100% and cost-effective got 258 out of 269 or 95%, this data prove that the intervention tool aid the teachers in assessing the reading performance level of their children.

- How did the K-ASER Tool help increase the reading performance level of the Kindergarten learners in the Division of Cagayan de Oro City?

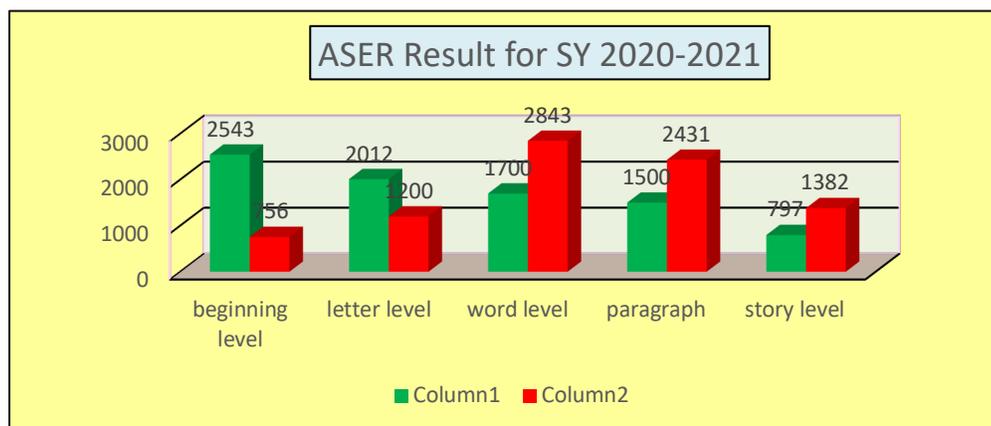


Figure 2 shows the Kindergarten reading performance level, in which in the beginning level from 2543 decreases into 256 or 9.93%, letter level also decreases from 2012 into 1200 or 1.7%, and in the word level it increases from 1700 into 2843 or 60%, paragraph level increases from 1500 into 2431 or 62% and in story level it also increases from 797 into 1382 or 58%, this data showed that the K-ASER Tool help increase the reading performance of the Kindergarten learners.

1 INTRODUCTION

The K to 12 Program and the goal of every child should be a reader; the Department of Education (DepEd) is strengthening its reading program through the implementation of the Early Language, Literacy, and Numeracy Program.

The most common problem encountered during the teaching-learning process in the classroom is that pupils have difficulties in learning the concepts introduced because of some reasons that the researcher would like to address. In Kindergarten Class our mode of teaching is through constant repetition to ensure the efficacy of the teaching and learning process. Teacher at all times translate and used the vernacular language to be more comprehensive. It is difficult to continue to the next topic knowing that there are still pupils who don't get fully understand the lessons. On the other hand, it would be unfair to those who knew already for them to wait longer because there are still pupils who cannot understand the lessons. Therefore, there is a need to increase their level of understanding before proceeding to the next level of discussion. But how could the teacher proceed to the next lesson if there are still pupils cannot even recognize the sound and words on the printed symbols.

According to Department Order No. 12 S. 2015 known as the Guidelines on the Early Language, Literacy and Numeracy Program: Professional Development Component, this program aims to develop in Filipino children literacy and numeracy skills and attitudes which will contribute to lifelong learning. More specifically, it aims to improve reading and numeracy skills of Kinder to Grade 3 pupils, following K to 12 Basic Education Curriculum, and to establish a sustainable and cost-effective professional development system for teachers.

Concomitant to this thrust, the Department of Education, has enforced the policy "Every Child A Reader" since School Year 2002-2003. It is expected that no pupil will be promoted to the next higher grade unless he/she manifests mastery of the basic literacy skills in a particular grade level. All possible means of assistance and encouragement shall be extended to enable them to read.

Also, the Department of Education recognizes that the foundation of learning is in a child's early language, literacy, and numeracy skills. These skills, according to DepEd, do not develop naturally, and thus require careful planning and instruction. There is thus, a

need, for children to have access to age-appropriate and culturally-sensitive materials to help them develop the habits of reading, speaking, writing, and counting.

Likewise, Department Order No. 47 s. 2017 also known as the Omnibus Policy of Kindergarten Education states that this DepEd Order further provides a comprehensive Kindergarten Education policy covering the different components of implementing Kindergarten Education Program curriculum, instruction (i.e., teaching methodologies and strategies), assessment, learning resources and instructional materials, learning space and environment, and monitoring and evaluation for the standard delivery of Kindergarten services, in which includes the enhancing of language and numeracy skills as part of its National Kindergarten Curriculum Guide.

Enclosure to this department order is Medium of Teaching and Learning (MOTL) which refers to the Language of Instruction (LOI) or Medium of Instruction (MOI) where Mother Tongue of the learners shall be the primary language used in teaching and learning in Kindergarten.

Mother Tongue refers to the "language or languages first learned, by the child which he or she identifies with, is identified as a native language user of by others, which he or she knows best, or uses most "(Section 4(d), Implementing Rules and Regulations of RA 10533).

Moreover, DO 16, S. 2012 – GUIDELINES ON THE IMPLEMENTATION OF THE MOTHER TONGUE-BASED- MULTILINGUAL EDUCATION (MTB-MLE) Starting School Year (SY) 2012-2013, the Mother Tongue-Based-Multilingual Education (MTB-MLE) shall be implemented in all public schools, specifically in Kindergarten, Grades 1, 2 and 3 as part of the K to 12 Basic Education Program. The MTB-MLE shall support the goal of "Every Child-A-Reader and A-Writer by Grade 1."

Learning to read is a big job that starts with making sounds and ends well. In kindergarten is where the main part of intentional reading instruction begins, when students are taught about letter sounds and symbols.

But how do teachers know when and what to teach when it comes to reading. In addition to a reading curriculum, teachers rely on the assessments for this purpose. Assessment is an important part of instruction. Teachers use them for many reasons and using the right ones at the right time. There are a variety of measures that can be used to gather data for each area of early reading. Assessment is a central element for any teacher and should be implemented regularly. Through its implementation, teachers able to help students access the skills and content they need from the general education curriculum. This will also allow all students to achieve to their highest potential. It is said also that reading assessment done well allows us to make inferences about students' needs and strengths. We can also assess related and important aspects

of reading development. We can determine that students' motivations, self-efficacy, and developing sense of the self as a reader are important.

However, despite the initiative and campaign of DepEd on these programs still there were gaps seen in the implementation of the program. One problem encountered in Division of Cagayan de Oro City specifically in Kindergarten was the low performance level of Kindergarten pupils during their reading assessment period based on the ASER Report of SY 2020-2021. The above-mentioned data concerns the researchers and find a solution to the problem. This being the case, the researchers gathered the data regarding to the existing problem and build an initial plan and collected feedback from the parents, pupils and teachers. The data reveals that there is a need of a reading assessment tool that is written in mother tongue that could be used during the reading assessment. The researcher looks for a solution and K-ASER Tool was the answer, the tool was written in mother tongue that the learners, parents and teachers can easily understand the words that was written and it was a booklet type with four reading stimuli.

To fully answer this existing problem, the researcher conducted a study that sought to strengthen the implementation of K-ASER tool in written in mother-tongue in assessing the Kindergarten learners in their reading performance level. Furthermore, the researcher sought to answer the following questions

in this study:

- How did K-ASER Tool intervention aid the teachers in assessing the reading performance level of a Kindergarten learners?
- How did the K-ASER Tool help increase the reading performance level of the Kindergarten learners in the Division of Cagayan de Oro City?

The study focused on the reading performance level of the Kindergarten learners during their reading assessment period and the implementation of K-ASER Tool in the Division of Cagayan de Oro City. This was to know if there is an improvement on the reading performance level of a Kindergarten learners on their reading assessment and how the implementation of the materials aids the teachers in conducting the assessment. The scope of this study was limited only to the Kindergarten learners in the Division of Cagayan de Oro City. And enable the division to strengthen the implementation of K-ASER Tool in mother-tongue based as a reading assessment tool for Kindergarten learners. This tool has a four reading stimulus: letter level, Word level, paragraph level and story level.

2. METHODOLOGY

The study used qualitative - quantitative and descriptive type of research method.

a. SAMPLING

The participants were the Kindergarten Learners of the Division of Cagayan de Oro City.

b. DATA COLLECTION

In collecting the data, the researchers used the triangulation method: the FGD, direct observation and survey. The data gathered revealed what were the reasons why the learners got low in their performance level in reading during assessment time and the high responses stated that they need an assessment tool that is written in mother tongue, these become now the basis of the researcher to seek for an immediate intervention.

The researcher's conduct a 3 weeks observation on the chosen participants of the study in the Division of Cagayan de Oro City. A survey questionnaire was also used to obtain data relevant to the study.

c. ETHICAL ISSUES

The researchers took measures to comply with the ethical aspects of handling pupil's confidentiality of the result in order not to violate their rights. For that reason, the researchers asked the consent of the parents that their child would be interviewed and answered about the reasons why they were had a hard time in reading using the existing ASER tool. The researcher also explained well to the participants why such information was needed in the research in order to find the solution on the low reading performance level of Kindergarten pupils during their reading assessment and assured the participants that all data would be kept confidential. The researchers also asked permission to the parent that they were also participants on the study together with the Kindergarten teachers. The researchers also ensure to the participants that there answers would be trusted

d. DATA ANALYSIS

The researcher seeks permission from the Division Office to conduct a research study. After such approval, the researcher conducted the said survey to the respondents. The researcher gathered the answer sheets from the chosen Kindergarten pupils and teachers. The answer sheets were gathered, checked, tallied, and tabulated.

To get the analysis and interpretation of the data, the following statistical measures was used for Problem 1, frequency and percentage were used on how did the reading assessment tool intervention aid the teachers in conducting the reading assessment?

For Problem number 2, ASER Report were used on how did K-ASER Tool intervention help increase the reading performance level of the Kindergarten learners in the Division of Cagayan de Oro City.

It was also shown in the three weeks observation through the Focus Group Discussion that the most common responses were the need of reading assessment tool that is written in mother tongue. In the survey questionnaire it was also revealed that reading assessment

tool written in mother tongue is needed. With the aid of K-ASER Tool the reading performance level of Kindergarten learners in the Division of Cagayan de Oro City who were low in their reading performance level during the reading assessment period increases into higher level and the numbers of learners who were in beginning and letter level decreases. And shows that through implementing the K-ASER Tool aids the teacher in conducting the reading assessment

2.1 CONCLUSIONS

Based on the foregoing findings, the researchers drew the following conclusions:

- This reading assessment tool can be expanded and utilized not only in the Division of Cagayan de Oro City but to the whole region.
- This material can also be used in G1-G3 Level learners in their reading assessment.

2.2. RECOMMENDATIONS

- The K-ASER Tool shall be implemented.
- This research study can be used for further study on crafting a reading assessment for Kindergarten.

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Group Discussion and Simulation as Teaching Interventions: Its Relation to Students' Performance in Entrepreneurship

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Abstract. Innovative teaching strategies are among the essential factors that affect student performance. Teachers play crucial roles in engaging learners to make the learning process more effective. This study aimed to determine the effect of group discussion and simulation on the students' academic performance. The sample was made up of forty-three Grade 12 Senior High School students taking Accountancy, Business and Management (ABM) and General Academic Strand (GAS). Students' performance refers to their scores in the pre-test and post-test as well as their semester final grade in Entrepreneurship subject. The data was collected during the first semester of the school year 2019-2020. Descriptive statistics, Pearson r , and T-test were used and complemented with qualitative data from students through focus group discussion. The study revealed that innovative teaching strategies increase student performance in Entrepreneurship subject. Moreover, the students' scores in the post-test were significantly higher than their scores in the pre-test. These further supported the effectiveness of innovative teaching strategies measured in terms of group discussion and simulation. Recommendations include strengthening the learner-centered teaching strategies, collaboration with teachers and school head, private academic institutions, and other government agencies, and the enhancement of business enterprise simulation.

Keywords: Group Discussion, Simulation, Entrepreneurship, Person

1 Introduction

To stay relevant to the global trend of 21st-century teaching and learning, the Philippines, through the Department of Education (DepEd), has been innovating programs to mold and equip the learners with the relevant competencies, skills, and values for both life-long learning and employment. The country hopes to produce graduates who are productive and responsible in their chosen career paths. This was emphasized in the Senior High School exits which are employment, entrepreneurship and higher education. (RA 10533, 2013). To further enhance this national endeavor of producing entrepreneur graduates, the government has instituted Republic Act No. 10679 "An Act Promoting Entrepreneurship and Financial Education among Filipino Youth". It stressed the establishment and support for entrepreneurship education and training to hone the skills of youth and encourage the entrepreneurial spirit among them.

In realizing these objectives, teaching methods and learning environment play a major and important role as catalysts. (Munawaroh, 2017). Recent 21st-century teaching pedagogies revolve around technologies, collaborative projects, simulation, and problem-based learnings, among others where students tackle and solve critically real-world global challenges. (Scott, 2015; Kalaian, Kasim and Nims, 2018; Yawmana & Kubib, 2018). These were considered as effective strategies to improve student achievement.

This study is anchored on the "Learning by Doing" theory of John Dewey (1938) which advocated a hands-on approach to learning wherein students need to interact with their school environment to adapt and learn. Accordingly, students learn best when they are in natural social settings (Flinders & Thornton, 2013 as cited by Morgan K. Williams, 2017).

In the case of Entrepreneurship in Senior High School, it is high time to identify the most appropriate and effective pedagogies in order to strengthen the entrepreneurial mind-setting among Senior High School students. This effort would hopefully produce graduates who can contribute to the domestic and economic recovery of the country through innovation, job, and wealth creation. (Collier-Meek, Sanetti & Boyle, 2016; Shane & Venkataraman, 2000 as cited by Karimi, Biemans, Lans, Mulder, & Chizari, 2012). Hence, this study was conducted.

2 Research Questions

This study aimed to determine the relationship of teaching intervention strategies to student performance in Entrepreneurship. Specifically, it sought answers to the following;

1. What is the profile of the Senior High School students in terms of:
 - 1.1 age
 - 1.2 gender
2. What is the Senior High School students' performance in Entrepreneurship subject?
3. Is the performance of the students in Entrepreneurship significantly higher after the intervention strategies?
4. Is there a significant relationship between intervention strategies and student performance?

3 Intervention Strategies

In this study, the teacher-researcher focuses on the use of group discussion and simulation as intervention strategies in teaching the Entrepreneurship subject which was employed during the whole 1st semester of the School Year 2019-2020. Student engagements were supplemented with activity sheets, and performance tasks as part of formative assessments. The teacher facilitated the feed backing through oral recitation and class discussion.

In a group discussion, the class was divided into six to eight members to discuss among themselves the four competencies about the basic concepts and principles of

Entrepreneurship. The teacher also employed group discussions in the eight specific topics related to the content in developing a business plan.

On the other hand, a simulation was used to nine learning competencies. Students were required to implement their business plan which involved conducting a market survey to determine the choices and interests of the target market, the results then became their bases in determining the product, pricing, promotion and packaging of their business. They were also required to summarize the results of their endeavor through financial reports which were evaluated as a group. Lastly, reflections and realizations were generated from each member which enhanced their critical thinking skills.

4 Research Methods

4.1 Sampling

The study population consisted of 30 students from Grade 12 Accountancy, Business and Management and 13 students from General Academic Strand (GAS) who are enrolled during the School Year 2019-2020. The sampling technique was purposive. The student's performance was based on the results of pre-test, post-test, and final grades which were analyzed with their responses on the researcher-made questionnaire and focus group discussion.

4.2 Data Collection

The researcher secured the approval or consent from the school principal, parents or guardians, and students before the data were collected. To adhere to complete anonymity and confidentiality, the questionnaire did not provide a space for their name. Coding was used to identify the answered questionnaire with their final grade.

4.3 Data Analysis

The study made use of the following statistical tools: descriptive statistics (frequency, mean, percentage, standard deviation), paired t-test, and Pearson r.

5 Results and Discussion

This portion presents, analyzes, and interprets the data gathered. The findings are presented based on the sequence of the problems.

Problem 1. What is the profile of the Senior High School students in terms of:

1.1 Age

Table 1. Frequency, percentage distribution of respondents' age

Age Range	Frequency	Percent
15-16	1	2.3
17-18	30	69.8
19-20	12	27.9
21-22	0	0
Total	43	100.0

As shown on Table 1, the respondents are dominated by the 17-18-year-old students. Only one fall under the age bracket of 15-16.

1.2 Sex

Table 2. Frequency, percentage distribution of respondents' sex

Sex	Frequency	Percent
Male	16	37.21
Female	27	62.79
Total	43	100.0

Sex distribution as shown on Table 2, revealed that they are generally female (63%) or 27 out of 43 while 16 or 37% of the respondent-students are male.

Problem 2. What is the Senior High School students' performance in Entrepreneurship subject;

Table 3

The Senior High School Performance in the Entrepreneurship subject

Quarterly Grade	Frequency	Percentage	Interpretation
90-100%	27	63	Outstanding
85-89%	7	16	Very Satisfactory
80-84%	6	14	Satisfactory
75-79%	6	7	Fairy Satisfactory

74-below	0	0	Did Not Meet Expectations
Mean= 3.3; SD=.97	43	100	Very Satisfactory

Student Performance refers to a student's final grade in Entrepreneurship. Its components are Written Works, 25%; Performance Tasks, 45%, and Quarterly Examination, 30%. (DepEd Order No. 08, s. 2015 known as Policy Guidelines on Classroom Assessment for the K to 12 Basic Education Program)

The data in Table 3 revealed that all of the students under study passed the Entrepreneurship subject as none of them got the final grade of 74-below. 27 of the students got an outstanding performance of 90-100 that comprises 63 percent.

The teacher dealt with students' difficulty of getting higher grades through intervention activities. These include remedial sessions as most of them missed the discussion, recorded quizzes or performance tasks due to absenteeism. Most of those who have outstanding Final Grades were always present in class.

Problem 3. Is the performance of the students in Entrepreneurship significantly higher after the intervention strategies?

Table 4 Mean and Standard Deviation of Paired Sample t-test

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error
	Pre-test	25.02	43	6.836	1.043
	Post-test	31.40	43	6.977	1.064

Table 4 above indicates that the teaching intervention strategies significantly affect the academic performance of the students as revealed in the results of the post-test mean (31.40), which is statistically higher than the pre-test (25.02) or a mean difference of 6.38.

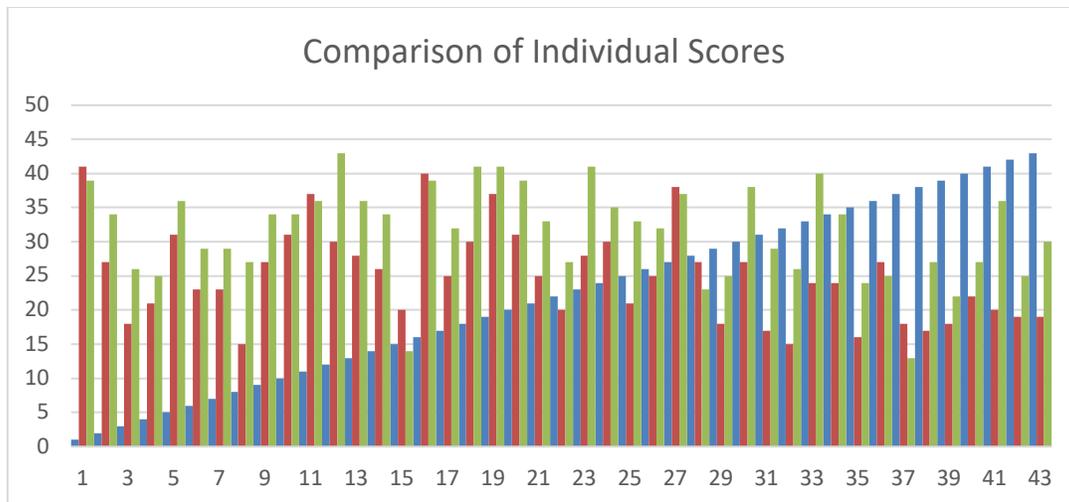


Figure 1. Graphical Comparison of 50-item Pre-test and Post-test Individual Scores

As shown in Figure 1, it is evident that the quality of teaching strategies employed in the delivery of Entrepreneurship lessons to this group of students helped in improving their academic performance.

Various studies revealed that collaborative learning techniques like group discussion and simulation are effective in improving the academic performance and academic confidence of learners (De Gale & Boiselle, 2015; Bose & Jehan, 2018; Kalaian, Kasim and Nims, 2018; Thotakura and Anuradha, 2018; Yawmana & Kubib, 2018). Likewise, Hanafiah (2016) concluded a similar argument that simulation was a valuable tool that developed students' knowledge and skills based on the finding of a study conducted using simulation strategy where students are exposed to problem-solving, financial management & production management & marketing aspect.

Problem 4. Is there a significant relationship between intervention strategies and student performance?

Table 5 depicts the significant relationship between group discussion and simulation to student performance.

Table 5

Relationship between group discussion and simulation and student performance

	Student performance Mean=3.37, SD=.95		
Teaching strategies	Pearson R	P-value	Interpretation
Group Discussion (mean=3.60; .72)	1	.000	Significant
Simulation (mean=3.62;.69)	.599	.000	Significant
**. Correlation is significant at the 0.01 level (2-tailed).			

For group discussion, the computed Pearson r is equal to 1 with 0.000 computed p -value while for simulation, the computed Pearson r is 0.599 with a computed p -value of 0.000. Hence, the data indicates that teaching strategies are positively highly correlated and have a significant relationship with student performance in Entrepreneurship.

During the focus group discussion, the teacher asked the students as to their perception of group discussion, most of them answered that it helped them comfortably shared their ideas with their classmates. Also, it was more convenient for them to collaborate and clarify vague concepts. However, one of the challenges of group discussion is when a group leader dominates the sharing and disregards other member's ideas. In this case, the teacher needs to unlock the students' difficulties either within the group or in the whole class. In a group discussion, the students discuss the topics based on their minimal level of understanding and experience which calls for the teacher's expertise to do the processing and deepening of the lessons.

On the other hand, many of the student-respondents cited simulation as one of their most-liked pedagogies. They mentioned their opportunity to apply their knowledge in planning, management, marketing, accounting among others into an actual business setting. They enjoyed doing the project-based task with their group mates. Each member of the group contributed an amount for their project and tasks were divided among themselves. It can be noted, however, that sometimes the members have disagreements. Yet, they learned to cooperate to succeed in their project. This implies that if simulation will be practiced continuously with much better innovation, it can create an entrepreneurial culture among senior high school students. Moreover, it is an avenue where students can learn across all learning areas and apply the 21st-century skills of creativity, communication, and collaboration, among others.

The findings agree with the Learning by Doing Theory as proposed by John Dewey which stated that schools should be representatives of a natural social environment where students learn best by applying their learning in real-world situations. Students who are participating in academic programs that gives importance and relevance to community-building and developing higher-level thinking skills for real-life application will be critical thinkers and significant contributors to local communities and society. (Flinders & Thornton, 2013 as cited by William, 2017)

6 Conclusion

The data indicate that if the teachers continue to develop innovative teaching strategies and deliver them effectively in terms of measurable learning outcomes, they intend to increase student performance in Entrepreneurship subject.

Group discussion and simulation are good predictors in improving the academic performance of Entrepreneurship students in Senior High School. Their academic performance based on their final grade revealed that all of them passed the subject with 63% of the students got an outstanding performance. Moreover, pre-test and post-test results have shown increased scores that supported the effectiveness of innovative teaching strategies measured in terms of group discussion and simulation.

7 Action Plan

Below are the proposed ways to disseminate the result of the study to make valuable contributions to the improvement of academic institutions.

1. Discuss the results of the study with the School Head for possible inclusion in the topics for School Learning Action Cell (SLAC) sessions, In-service Training (INSET), and Mentoring and Coaching (MAC) sessions.
2. Strengthen the Business Enterprise Simulation (BES) in school. Programs may include a partnership with the school canteen, teachers' cooperative and school tenants and vendors where students participate in their business operations.
3. Strengthen stakeholders' partnership and community involvement by organizing a group of educators and experts who will work on providing relevant school-based training. Partners would include the Department of Trade and Industry (DTI) Negosyo Center, Technical Educational Skills Development Authority (TESDA), Local Government Unit or Barangay and Private Higher Education Institutions.
4. As 21st-century educators, teachers must upskill and abreast themselves with the current global standards to stay relevant and effective in teaching.

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Appendix A Questionnaire

Part I. PERSONAL DATA

Name (Optional): _____ Age: ____ Sex: _____ Strand: _____

Part II. INNOVATIVE TEACHING STRATEGIES

The different statements that follow indicate your teacher's strategies. Encircle the number that corresponds to your perception of the means of delivering the desired competencies to you as Senior High School students. Please rate the statements as to its relevance.

<u>Rating Scale</u>	<u>Descriptive Rating</u>	<u>Interpretation</u>
4 -	Always (A)	- Always Practiced
3 -	Most of the Time (M)	- Most of the Times Practiced
2 -	Sometimes(S)	- Sometimes Practiced
1 -	Never (N)	- Never Practiced

No	Indicators	Scale			
		A	M	S	N
	The teacher				
1	divides the class into small groups of 7-10 members per group.	4	3	2	1
2	assigns a group leader to facilitate the discussion	4	3	2	1
3	states the learning objectives or the topic before the start of the discussion	4	3	2	1
4	sets the time duration of the discussion	4	3	2	1
5	monitors the progress of group discussion	4	3	2	1
6	ensures that all of the group members have equal time to share their ideas and participate well in the discussion	4	3	2	1

7	makes follow-ups and/or unlocks difficulties to the whole class	4	3	2	1
8	conducts assessment after the group activity	4	3	2	1
9	requires the learners to conduct a market survey	4	3	2	1
10	requires the learners to prepare and submit a business plan by a group	4	3	2	1
11	ensures that the business plan is feasible and relevant to the target market's needs, preference and purchasing power.	4	3	2	1
12	checks the learners' output from time to time	4	3	2	1
13	monitors the plans and suggests better strategies	4	3	2	1
14	requires the learner to think of a unique marketing strategy	4	3	2	1
15	provides exposure to the learners on the actual scenario of marketing their products	4	3	2	1
16	encourages the learners to apply the principles in dealing with customers	4	3	2	1
17	requires the learners to compute the return of investments of the business undertaken	4	3	2	1
18	provides insights after the simulation activity	4	3	2	1
19	requires the learners to evaluate their simulation performance	4	3	2	1
20	The exposure to the real world in business in our class provides us a keen understanding of the nature of customers.	4	3	2	1

MOVIN (MOtivational Videos for INstruction): Self-Made Videos to Increase the Submission Rate of IPTs on Scheduled Time among Grade VI-A Learners in West City Central School

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Abstract. This research study is entitled MOVIN (MOtivational Videos for INstruction): Self-Made Videos to Increase the Submission Rate of Integrated Performance Tasks on Scheduled Time among Grade VI-A Learners in West City Central School. The current situation has not thwarted the desire of the school in general, and the teachers to enhance the knowledge, skills, and abilities of the learners. DepEd Order No.31. s. 2020 or the Interim Guidelines for Assessment and Grading in light of the Basic Education Learning Continuity Plan provides guidance on the assessment of student learning and on the grading scheme to be adopted this school year. Since, it was identified that several learners had the difficulty in doing the performance tasks and submitting them on time, the teacher-researchers created the intervention MOVIN, self-made videos that provided instruction in doing the tasks. Among the 23 sections in Grade VI, Grade VI-A had the greatest number of learners who failed to submit the tasks on the scheduled time. This research study used the qualitative and quantitative methods in analysing the data. The participants were asked to answer the Learner's Learning Monitoring Plan wherein the reasons or factors affecting to submit the tasks on time were identified. The parents were also given instruction during distribution, and interview was also done. A survey on the effectiveness of the intervention was also provided to the learners. After the use of MOVIN, there was a difference of 25% in successfully submitting the integrated performance tasks from the previous quarter.

Keywords: performance tasks, instructional video, time-on-task

1. Introduction

The Department of Education has implemented myriad of programs, undertakings and interventions to provide an avenue where learners could continue learning despite of the situation everyone is in.

It is seen that the department has been dedicated with its commitment to ensure teaching and learning continuity while looking after the health, safety, and also welfare of the learners, teachers, and other personnel. DepEd Order no.12, s.2020 titled Adoption of the Basic Education Learning Continuity Plan (BE-CLP) for School Year 2020-2021 in light of the COVID-19 Pandemic clearly points out that the department shall employ learning

delivery modalities (LDMs) to ensure the continued provision of learning opportunities to its learners, while protecting the health and safety of both teachers and learners. Blended learning, distance learning, and home schooling are done.

To provide support to the said DepEd Order, the department issued DepEd Order 31, s.2020 entitled: Interim Policy Guidelines for Assessment and Grading in Light of the Basic Education Learning Continuity Plan to provide guidance on the assessment of student learning and on the grading scheme to be adopted this school year. The order further states that the grading system implemented in the interim policy provides reasonable leniency to learners who are put to a larger disadvantage by the pandemic, but at the same does not compromise the integrity and principles of assessment and grading. With this, written tasks and performance tasks shall be administered to assess the content and performance standards that describe the knowledge, abilities and skills that learners are expected to demonstrate. In this particular grading system, performance tasks cover the 50% of the grade in both Math and Science subjects, 60% for Languages- English and Filipino, Araling Panlipunan (AP), and Edukasyon sa Pagpapakatao (ESP) subjects, and exactly 70% for MAPEH and TLE/EPP subjects.

In this time of pandemic, learning has been a challenge for the learners, especially for the elementary school children. As much as possible, they should be provided with materials that could really keep them enthused and engaged in learning. Teachers should look for any possible means to provide the learners with avenues where they could learn, interventions to enhance their skills, and also instructional materials that would motivate them to do a thing. In other words, it is then imperative for schools and teachers to take stock of assessment and grading practices that will most meaningfully support learners' development and respond to varied contexts at this time.

The teachers, particularly Grade 6 teaches are concerned with the performance of the learners in this time of crisis. During the first quarter, there were several learners who were not able to submit the integrated performance tasks on the given scheduled time. With the use of the Learner's Learning Monitoring Plan, it was identified that among the 23 sections, it was Grade VI - A with the greatest number of learners who failed to submit their outputs on the given due time. Aside from the outputs were submitted late, they were not able to meet the grading standard or rubric as well. The learners were able to state what were the difficulties they encountered in doing the tasks which led to their failure to submit on time the given tasks.

The cited reasons or factors that affected the learners' late submission of performance tasks were the following: difficulty in understanding the given instruction, absence of MKOs (More Knowledgeable Others), and the lack of resources. With the problem identified by the teacher-researchers, MOVIN (MOtivational Videos for INstruction) was then created.

The learners were provided with self-made video materials for the given integrated performance tasks. The learning areas were divided into two: STEM (Science, TLE, EsP, and Math) and FAME (Filipino, Araling Panlipunan, MAPEH, and English). For the first quarter, the learners were given two integrated performance tasks, one for FAME, and one for STEM. The given Integrated Performance Tasks (IPTs) were anchored on the Most Essential

Learning Competencies (MELCs), particularly on the English learning area. For the given task in FAME, the learners were tasked to make a poster, but along with the poster would be the description which would be written in both Filipino and English. In writing their description, the learners were expected to master the learning competency to compose clear and coherent sentences using appropriate grammatical structures (EN6G-IIb-5.5.1, EN6G-IIb-5.2.1) and make connections between information viewed and personal experience (EN6VC-IVd-1.4). For the second quarter, the performance task given was to make a graphic organizer. In making the graphic organizer, the learners were expected to plan a composition using an outline or other graphic organizers (EN6WC-IIb-1.1.6.1). The instructional videos provided to the learners helped them in doing the tasks. A clear instruction was given. They were taught how to write simple sentences. They were taught how to make a graphic organizer, including what certain details or information they needed to write on their graphic organizer. With the given instruction on what to do, and how to do the tasks, the learners were able to submit the task on the given scheduled time.

This study aimed to increase the submission rate of the Integrated Performance Tasks on the given scheduled time. It sought to answer the following questions:

1. How did the following factors, namely: difficulty in understanding the given instructions, absence of MKOs, and lack of resources affect the failure to submit the IPTs on the given schedule?
2. How did the intervention "MOVIN" increase the submission rate of IPTs on the given schedule?

Milos Ljubojevic (2014), states that the context of the video content and the position of supplementary video clips in teaching material are important influences on factors for motivation and efficiency in learning. The teacher-researchers created the self-made videos to guide, enthuse, and motivate the learners to do the tasks nicely and submit them on the given scheduled time.

The use of MOVIN is just one of the many benefits that technology has provided to make learning accessible and still possible to happen amidst COVID-19 pandemic. Maria Barron, et.al (2021), clearly states that technology interventions should enhance teacher engagement with students, through improved access to content, data, and networks, helping teachers better support student learning. Effective use of technology is one of the key principles to ensure cadres of effective teachers.

This study used the qualitative and quantitative methods in analyzing the data. The participants were asked to answer the Learner's Learning Monitoring Plan wherein the reasons or factors affecting to submit the tasks on time were identified. The intervention was then used to remedy the problem among the respondents. But, it was also used in the other sections who had learners as well who failed submit the First Quarter Individual Performance Task on their respective scheduled time.

This study understood the ethical aspect of considering all the results to be confidential especially concerning the learners. In this case, it was clearly explained to the parents what to do on the Learner's Learning Monitoring Plan. The parents agreed on the

intentions of the researchers. The researchers explained thoroughly to the respondents why such information about Learner's Learning Monitoring Plan. They were told that the study that was conducted would not help the parents, the students, but more so the school. And most importantly, the respondents were assured that all information given by them were all kept clandestine.

2. Results and Discussion

With the given performance tasks of the First Quarter, the researchers were able to identify the following factors as reasons why there was a difficulty in submitting the integrated performance tasks on the given scheduled time. The following were identified below.

1. "Wala ko kasabot unsay buhaton"

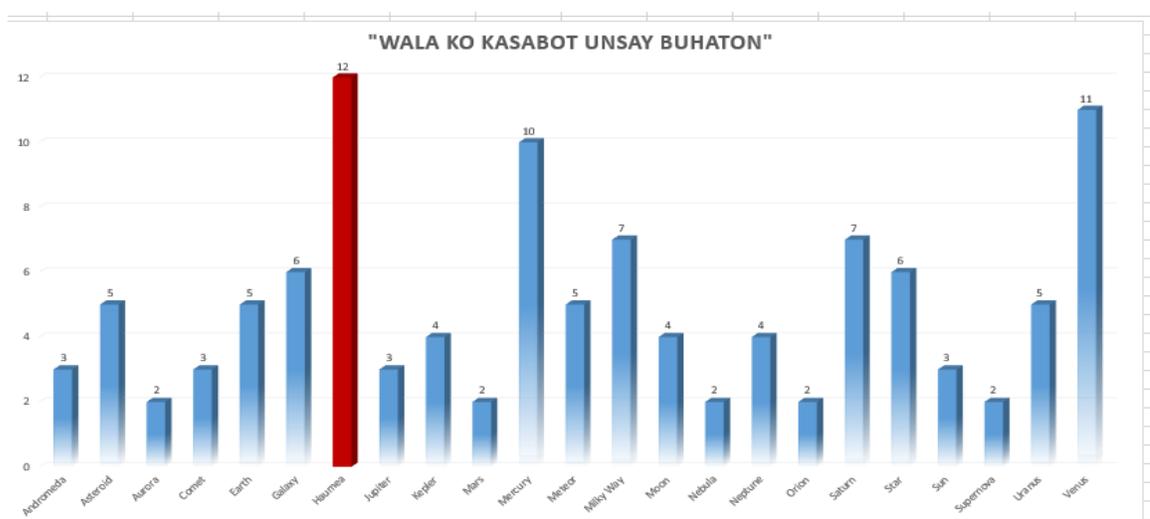


Figure 1: Responses of the Participants per Grade Six Section

Figure 1 shows the responses of the participants per Grade Six Section. It is shown in the chart that among the 23 sections, Grade Six Haumea had the highest number of learners of about 12 or 37.5% of the class had the difficulty of understanding the given instruction and could not do the tasks.

2. "Walay Makatabang"

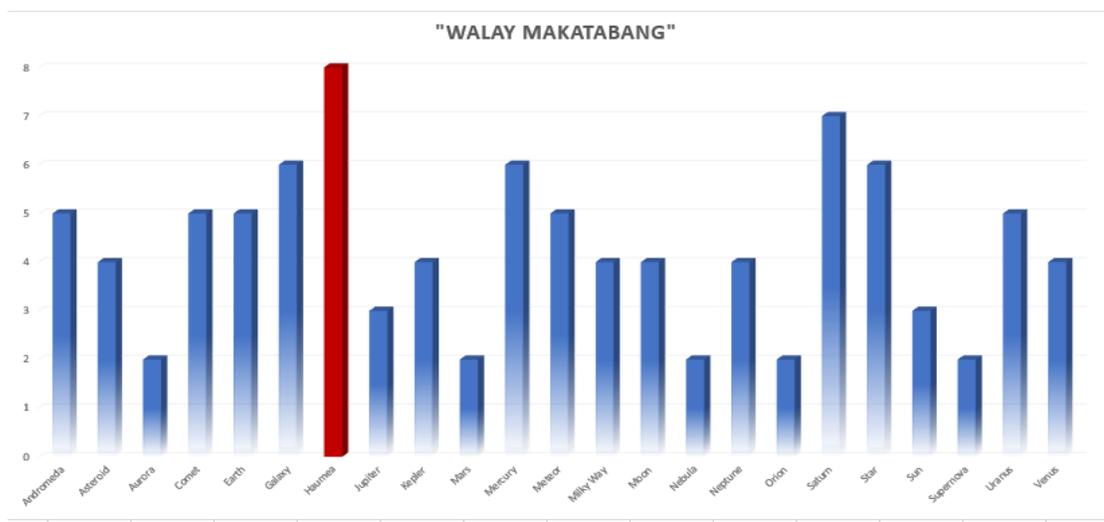


Figure 2: Responses of the Participants per Grade Six Section

Figure 2 shows the responses of the participants per Grade Six Section. It is shown in the chart that among the 23 sections, Grade Six Haumea had the highest number of learners of about 8 or 25% of the class didn't have someone or an MKO (More Knowledgeable Other) that could help in doing the tasks.

3. Walay Kwarta or Kulang sa Resources

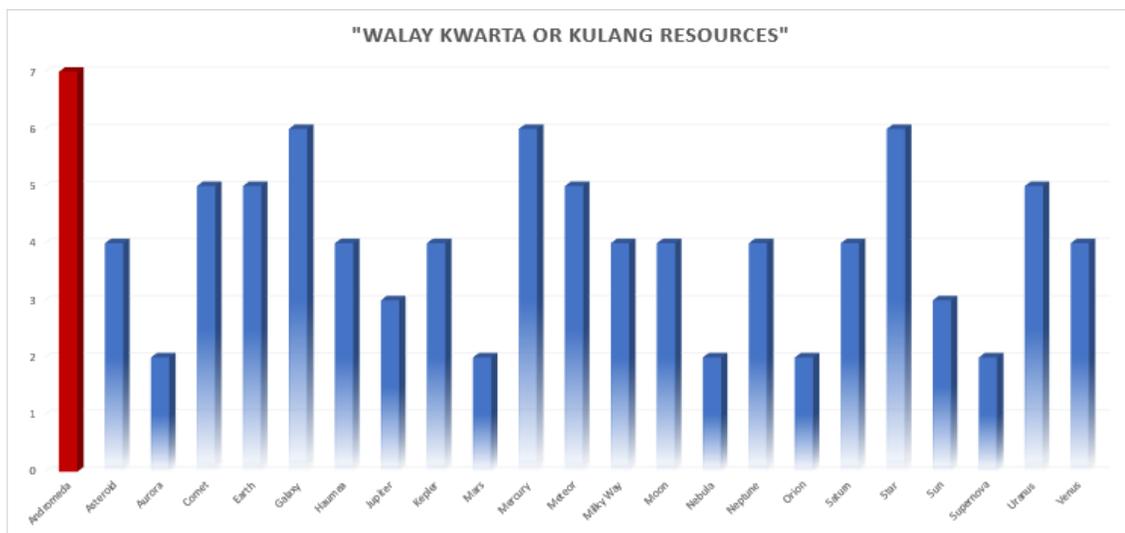


Figure 3: Responses of the Participants per Grade Six Section

Figure 3 shows the responses of the participants per Grade Six Section. It is shown in the chart that among 23 sections that were indicated, although it was Grade Six Andromeda had the highest number of learners with problems on resources, 4 or 12.5% of the learners in Grade VI-Haumea experienced the problem.

4. Consolidated Answers on Learner's Learning Monitoring Plan

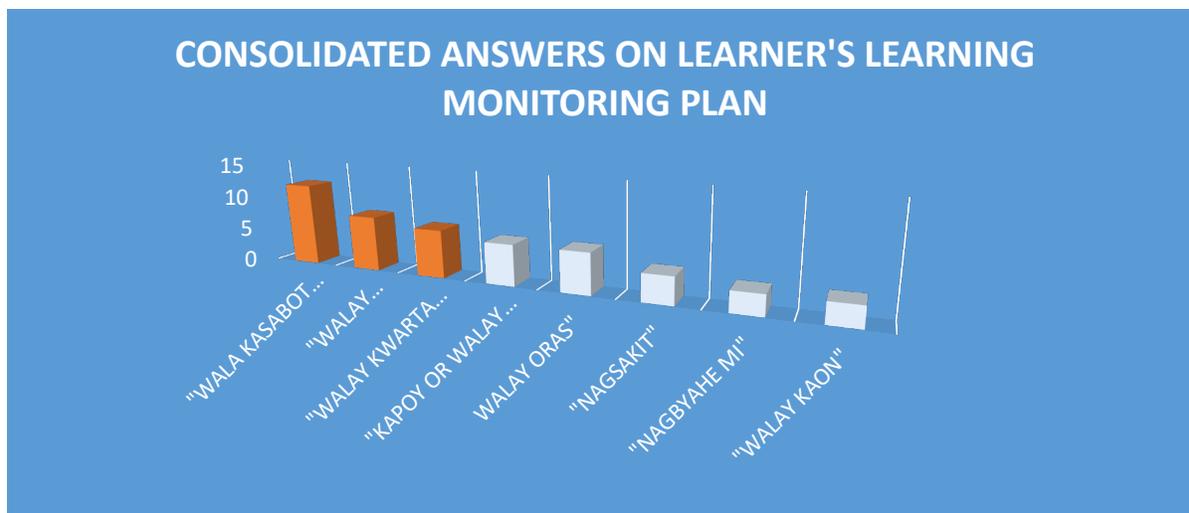


Figure 4: Consolidated Answers of Grade Six - A on Learner's Learning Monitoring Plan

Figure 4 shows the Consolidated Answers of Grade Six A on Learner's Learning Monitoring Plan. It is shown in the chart that among the factors affecting the difficulty in submitting the Individual Performance Task on time, "walay kasabot unsay buhaton" had the highest percentage rate. It is followed by "walay magtabang," and "walay kwarta ug walay materials," respectively.

Figure 5: Comparative Result on the Submission of the Integrated Performance Tasks

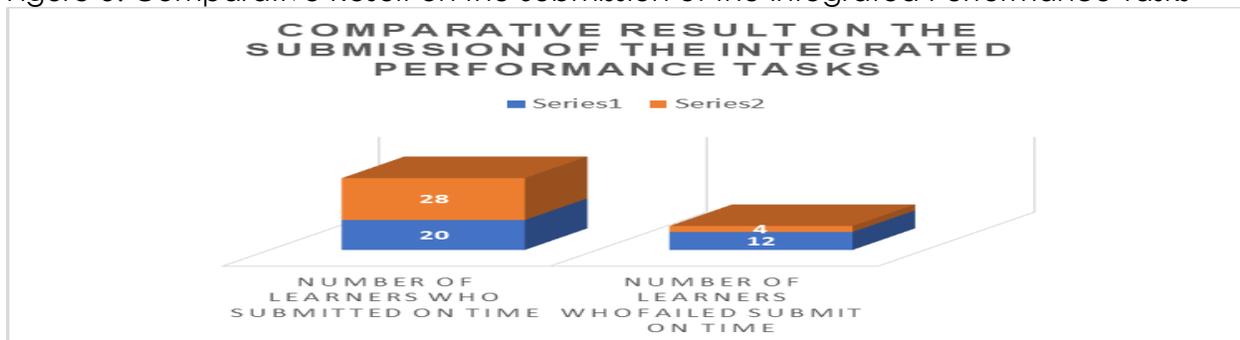


Figure 5: Comparative Result on the Submission of the Integrated Performance Tasks on Time of Grade VI A for the First Quarter and Second Quarter

Based on the chart, there was an improvement on the submission of the tasks on time. After the given scheduled date of submission, about 28 or 87.5% of the learners were able to submit successfully the tasks compared to the 20 or 62.5% in the previous quarter. From 12 or 37.5% who were not able to submit on time, it decreased to 4 or 12.5% failed to submit on time. It shows a positive result on the use of the intervention.

With the use of the Learner's Learning Monitoring Plan as the basis for this research study, the teacher-researchers were able to identify the following factors which greatly affected the failure of the respondents of this study to submit their Integrated Performance Tasks on the given scheduled time.

Difficulty in Understanding the Given Instructions. The learners were provided with the Integrated Performance Tasks for the First Quarter. The IPTs were given to them and they needed to finish them in a week. Upon getting the task template, instructions were provided. Aside from that, the guardian who received the sheet was given instruction as well of the teacher on what to do with the tasks. However, based on the response of the learners on the Learner's Learning Monitoring Plan, it came out that learners, particularly the 12 among the 34 learners had the difficulty in understanding the instruction and did not know what to do with the task. The instructions were written in English language. The problem was not totally the use of English, but it was the difficulty of the learners to understand or comprehend.

It is a fact that learners could do a certain task if they could understand completely the given instruction. With the use of the self-made instructional videos on how the tasks should be done, the learners were not only able to follow but they were also motivated to do the tasks. Most learners learn or understand a concept or what-to-do when they could see something how it is to be done. The videos made were visual representations on how the tasks should be done. They were taught on how to write simple sentences and based them on their personal experiences. There were taught how to arrange their sentences to have unity and coherence. Lastly, they were taught what to write about in making a graphic organizer. The steps were clearly instructed and at the same time, it was presented in a way that was enthusing, engaging, encouraging, and most importantly motivating.

Absence of MKOs (More Knowledgeable Others). In this time of crisis, parents, guardians, or whoever those the learners could be considered as the "More Knowledgeable Others" play a significant role in the child's acquisition of learning and understanding of the lessons and instructions. The MKO is someone who has a better understanding or a higher level of intelligence than the learner with respect to a process, concept, and of course task. This study pointed out the role of the MKOs in providing help for the learners to do a task. Although the learners are living with their guardians and parents, however these people could not be easily identified as the MKOs when they themselves could not well understand as well the given instructions. It had been a sad reality to hear from parents and guardians that they themselves had difficulty as well in doing the tasks.

Lack of Resources. In the conduct of this study, the teacher-researchers were able to identify that the lack of resources or certain materials to be used affected the learners in doing the tasks. A number of learners were not able to do the tasks and submitted the tasks on time because they didn't have the materials, particularly printer, computer or laptop among others to be used.

3. Conclusion

This research study was able to identify the following the factors which affected the learner-respondents difficulty in submitting the integrated performance tasks on the given scheduled time. It could not be denied how valuable time is, and more so the submission of the tasks. With the use of MOVIN (MOtivational Videos for Instruction) as instructional videos in performing the tasks, the learners had the clear understanding on how the tasks should be done. The self-made videos delivered the instructions in the

manner that the learners could easily comprehend, and the videos were presented in an engaging and motivating manner.

After the use of the intervention, there was an improvement based on the comparative result on submitting the tasks on time. From a percentage of 62.5% from the first quarter to 87.5% in the second quarter, a difference of 25% indicated that the use of self-made videos could really help the learner-respondents in doing the tasks.

In this time of pandemic, the researchers or even other teachers would want the learners to keep on moving. As teacher-researchers, it is our responsibility to provide the learners with instructional materials like MOVIN (MOTivational Videos for Instruction) to keep them engaged in learning. We should understand the need to provide them with materials that are not only accessible and reliable, but really something that would motivate them to MOVE.

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Readiness of Career Shifters in the Teaching Profession

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Abstract

The purpose of the present study is to determine the readiness of career shifters in the Teaching Profession at the National Teachers College. The study made use of descriptive quantitative research design involving thirty-three (33) students purposively selected to constitute as respondents. These respondents were subjected to a teacher modified survey instruments.

The researcher deemed it fit to use descriptive research design since the study involves describing the behavior or characteristics of the career shifters without influencing or affecting their normal behavior. The design was also useful where it is not possible to test and measure a large number of samples in order to obtain a general overview of the subject. Likewise, the modified survey questionnaires used in the study allowed participants to answer questions administered during approved scheduled dates.

Since the study does not involve randomization, it utilized purposive sampling, which is a non-probability sampling technique. This technique was more reliant on the researcher's ability to select sample-respondents because all identified career shifters are enrolled in the Master of Arts in Education (MAEd) programs in the same institution. Thus, only those samples were selected among this group population which suits the best for the purpose of the study.

Keywords:

The following terminologies used in the study are operationally defined to better understand their usage and functionality. These include:

Career Shift. The term refers to a change in career path from one's profession to another profession. In the study, it is used exclusively for graduate students who finished their baccalaureate degrees in non-teacher education programs, passed the licensure examination for teachers (LET), and are enrolled in the Master of Arts in Education (MAEd) program at The National Teachers College.

Career Shift Determinants. These refer to the researcher's identified demographic profiles and personality characteristics that may have major contributions and differential influence to shifting careers into the teaching profession.

Non-Teacher Education Students. These refer to baccalaureate graduates of non-teaching education programs in Higher Education Institutions (HEIs) enrolled in the Professional Teaching Program (PTP) or the Teachers Certificate Program (TCP) who took up 18 units of major education courses as prerequisites to the Licensure Examination for

Teachers (LET). They served as respondents of the study who are currently enrolled at the Master of Arts in Education (MAEd) program at the National Teachers College.

Readiness The term refers to a state of being prepared in the attainment and demonstration of requisite competencies in the teaching profession. This is measured in terms of the respondents' profile and personal characteristics as well as on their assessment towards ability to work in teams, problem-solving skills, written communication skills, strong work ethics, verbal communication skills and leadership.

1. Introduction

The teaching profession has been regarded as the pillar of all professions – the noblest of all. In the Philippine setting, however, a highly demanding and perennially dynamic interplay among the stakeholders in our educational system persists. New challenges and increased demands for reciprocity in the overall operations in the teaching profession require its stakeholders to have active involvement in order to successfully deliver the very purpose of its existence. Consequently, there has been a growing awareness of the need to change and improve the preparation of students for productive functioning that is hinged at the doorsteps of the Commission of Higher Education (CHED) and the Department of Education (DepEd). The convergence of these two national-based institutions led to the institutionalized K to 12 program. Clearly, no panacea of some sort can be applied with the expectation that significant improvements of the system will occur.

While it is crucial to develop the students' capacity for self-directed learning and development resulting from the great proliferation of knowledge and rapid changes in most fields of study, Higher Education Institutions (HEIs) must realize that the students need academic skills as prerequisites for their readiness, recruitment, employment, and productivity.

An important development is the growing awareness of the need to take a second look on the sudden career shift of groups of teacher education students who are graduates of non-teacher education programs. In particular, these are referred to as the Non-Teacher Education (NTE) baccalaureate degree holders who took up 18 units of Education courses or more in the Professional Teaching Program (PTP) or the Teacher Certificate Program (TCP) in order to qualify for the requirement of the Philippine Regulatory Commission (PRC) to take the Licensure Examination for Teachers (LET). These groups of career shifters may find the PTPs or the TCPs useful in their continuing studies as the program prepares them with the necessary tools required in the teaching profession to be effective teachers. However, how prepared are they to engage into the teaching profession in the basic education either in the elementary or the secondary level becomes the subject of the investigation the study is seeking for.

Presently, baccalaureate graduates of non-teacher education programs thrive on working with their compliance requirements to be considered officially as future teachers. Hopefully, such undertakings would equip them with teaching competencies as well as readiness deemed essentials to become effective facilitators of knowledge, skills, and attitudes among the young mentees, in particular, teaching them to develop higher order thinking skills (HOTS).

Meyer (2014) stated that career readiness must equally value knowledge and skills and that setting standards for what students should know and be able to do must be put in its proper perspective. Thus, it is imperative for career shifters in the teaching profession to be equipped with the necessary tools to effectively teach young minds and be productive in their pursuit to provide quality education.

The present study attempts to find out some demographic profiles of career shifters that may be contributory in their major decision on changing career paths. These profiles include age, bachelor's degree earned, nature of work experience, the number of years of work experience, reason for shifting careers and their previous monthly income. Likewise, the study recognizes that perhaps some personal characteristics such as attitudes, anxiety, independence and emotional stability may have differential effects on the success of career shifters. Thus, the influence of some demographic profiles and personal characteristics among these new breed of teachers or future teaching professionals would require empirical basis to closely examine their success in shifting into the teaching profession. In addition, the study attempts to examine the factors that determine career readiness among these students.

The study was conducted to meet this purpose, in particular, the readiness of all career shifters enrolled in the Master of Arts in Education (MAEd) program at the National Teachers College. The views of these graduate students are relevant in helping the researcher extract data on their readiness to the teaching profession, thus validating somehow the reason to pursue the research study.

THEORETICAL BASIS

The present study underscores career theories that have evolved over time. It shows how theorists forwarded their positions in order to explain the phenomenon of career choice and migration across discipline. It attempts to discuss the different theoretical underpinning that would eventually support the problems, which it presents. In particular, the perennial influx of non-teacher education graduates in both private and public institutions into the teaching education profession.

The study finds Parson's Theory as most useful in supporting the research problems it has conceptualized.

Parsons Theory

People perform best when they are in jobs best suited to their abilities. This is best described in Frank Parsons Trait and Factor Theory of Occupational Choice. At the centre of Parsons' theory is the concept of matching. Parsons states that occupational decision making occurs when people have achieved the following:

- 1.) an accurate understanding of their individual traits (aptitudes, interests, and personal abilities);
- 2.) a knowledge of jobs and the labour market;
- 3.) a rational and objective judgement about the relationship between their individual traits and the labour market.

This concept of matching still governs most current practices and that the theory operates under the premise that it is possible to measure both individual talents and the attributes required in particular jobs. It also assumes that people may be matched to an occupation that is a good fit. Parsons suggests that when individuals are in jobs best suited to their abilities, they perform best and their productivity is highest.

The present study expands on current literature by analyzing the viewpoints of those who have changed careers, to better understand the phenomenon, and seeks to identify the key reasons why career shifts take its course in the academic community. It finds the theories tangibly relevant and essential to understanding career shifts, thus would be helpful in arriving at findings and conclusions supportive of the specific problems the study sought to investigate.

Statement of the Problem

The purpose of the study is to determine the readiness of career shifters in the Teaching Profession enrolled in the Master of Arts in Education (MAEd) program at the National Teachers College. Specifically, the study sought to answer the following questions:

1. What is the respondents' profile in terms of:
 - 1.1 Age;
 - 1.2 Bachelor's degree;
 - 1.3 Nature of previous work experience;
 - 1.4 Number of years of previous work experience;
 - 1.5 Reason shifting career; and
 - 1.6 Previous monthly income?
2. What is the level of awareness of the respondents on their personal characteristics in terms of:
 - 2.1 Attitudes;
 - 2.2 Anxiety;
 - 2.3 Emotional stability; and
 - 2.4 Independence?
3. What is the level of awareness of the respondents on career readiness in terms of:
 - 3.1 Ability to work in a team;
 - 3.2 Problem solving skills;
 - 3.3 Written communication skills;
 - 3.4 Strong work ethics;
 - 3.5 Verbal communication skills; and
 - 3.6 Leadership?
4. Is there a correlation between each of the identified profiles of respondents and their level of awareness on personal characteristics?
5. Is there a correlation between each of the identified profiles of respondents and their level of awareness on career readiness?

6. Is there a correlation between the level of awareness on personal characteristics and level of awareness on career readiness?

The specific problems forwarded in the study require references culled

from previous research and studies published in scientific journals and other proceedings. A review on these sources provides a broader leeway of understanding for the researcher to find some connections of their findings and the possible outcomes that the present study is investigating. It is surmised that previous findings would support the results of the present study.

Career Development

In the study of McKay (2019), career development was cited as the process that forms a person's work identity. Such a process is a significant part of human development and spans over the individual's entire lifetime, beginning when the individual first becomes aware of how people make a living. The study further adds that after the profession has been chosen, one has to get the required education and training, apply for and find employment, and ultimately advance in the chosen career. For most people, however, it will also include changing careers and jobs at least once in their work lives.

Another study on career development conducted by Messesmith, et al. (2008) suggests that there are certain social-contextual experiences which are viewed influential in individuals' career interests, aspirations, and skill development. Findings of the study indicated that parents were mostly supportive, while experiences in school and work occasionally made individuals reconsider their career plans.

The need to embark into a different line of work, like most people do in their careers, can be quite baffling and overwhelming. While some even go as far as enrolling for a new degree program, others, during such moments may be filled with self-doubts. There are many factors to be taken into consideration before one decides that changing a career line is the right move to make especially in a job market that is now saturated (Arnup and Carless, 2011). The study also shows that there are times when it takes a long time to realize one's true passion and the moment one finally realized that there is really no passion for a job, this is enough reason to change careers.

It is said that making an informed decision regarding a career choice will increase the likelihood of satisfaction. Regrettably, even if one has to do everything right, there are no guarantees that the chosen career, when it has just started out, is the one that will remain for the rest of the working life (McKay, 2019). Changes come and go and may influence whether staying in or leaving in the same career is the best option under certain prevailing circumstances.

The days of starting and staying a career with one company or employer are long gone Clark (2015). Accordingly, there are factors that led to this kind of a situation such as downsizing or restructuring, issues with management, and the desire for a better life. Likewise, having a poor relationship with colleagues especially with management can lead to the decision to change jobs.

Career Readiness

In the academe, General Point Average (GPA) or General Weighted Average (GWA) is a standard measure of success (Williams, 2017). But while grades are obviously important, various job managers look beyond a student's transcript. There are attributes that employers look for on a job candidate's resume which are relevant and applicable to a classroom setting. The study of Williams cites the following: (1) ability to work in teams; (2) problem-solving skills; (3) written communication skills; (4) strong ethics; (5) verbal communication skills; and (6) leadership.

Teachers in the academe come with a range of personalities, preferences, and experiences. While conflicts are inevitable and considered part and parcel of any human organization, cooperation is essential to the team's success, thus building rapport with fellow teachers and students, treating everyone with respect, embracing diversity, acknowledging the validity of different viewpoints and practicing helping others are key points to make a classroom teaching learning instruction truly meaningful and productive.

Meluleni (2015) cited guidelines to make the right or correct decision on when to change careers. These include: (a) satisfaction in one's chosen career by knowing the employees' strengths and weaknesses; (b) examination of whether the efforts one has given to the employer commensurate the pay it provides to their employees since it is important to understand whether a career change is wise or not without feeling embarrassed to make a change; (c) exploration of all prospects in the workplace by seeing how they suit to one's skills because any available promotional opportunity that may be available becomes an opener to take the right move; (d) recognition for work done as it creates a feeling of appreciation, thus boosts morale and motivates them to serve more; and (e) unhappiness, or lack of contentment stemming from other areas of experiences are deemed relevant to career change.

Career development for most people is a lifelong process and oftentimes involves career change. Each individual undertaking the process is influenced by many factors including the context in which they live, their personal aptitudes, and educational attainment. A major turning point in the career choice is viewed by family and community as a mere start to workplace readiness. However, this decision plays a major role in establishing a career path that opens as well as closes opportunities.

Hypotheses

1. There is no correlation between each of the identified profiles of respondents and level of awareness on personal characteristics.
2. There is no correlation between each of the identified profiles of respondents and level of awareness on career readiness?
3. There is no correlation between respondents' level of awareness on personal characteristics and their level of awareness on career readiness.

2. Conclusion

Based on the summary of findings, the following conclusions are drawn:

- 1.1 The range of ages was 21-30 years, thus career shifters are mostly young professionals who maybe are technologically advanced.
 - 1.2 Bachelor's degree earned, though varied, are vertically aligned to the basic education programs, thus are prepared into the teaching profession
 - 1.3 Nature of work experience is varied and mostly not aligned with the requirements for the teaching profession, thus would require additional seminar/training on pedagogical content knowledge and process skills on top of their graduate programs.
 - 1.4 To pursue their dreams or that teaching is their passion, therefore, the teaching profession is their right career path.
 - 1.5 Previous monthly income may have influenced the change in their career paths into the teaching profession
2. Attitudes, anxiety, emotional stability and independence of career shifters are viewed as very satisfactory, therefore, they are said to be prepared and ready to be part of the teaching profession.
 3. Career shifters' level of awareness on career readiness is very satisfactory, therefore, their option to be future teachers is deemed timely and relevant.
 4. The variables on profile and personal characteristics have positive relationships or associations, thus one variable influences the other.
 5. Most variables on profile and career readiness have positive relationships or associations, therefore career shifters are considered ready to be part of the teaching profession.
 6. The negative correlation between the level of awareness of personal characteristics and that of career readiness does not mean no relationship or associations, therefore, these variables are considered essential in the teaching profession.

Recommendations

Based on the findings of the study and from the conclusions drawn, the following recommendations are proposed:

1. The respondents are provided with regular in-service seminars, workshops and training in pedagogy, content knowledge and process skills to cope up with needs and expectations of being practitioner in the classroom.

2. A need to amend the R.A. 4670 mandating the 18 units of professional education as the minimum requirement for non-education graduates to take the Licensure Examination for Teachers and be allowed to teach and practice the profession.
3. A similar study will be conducted in the future that would include the factors influencing career change among different groups of students.

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Lesson study: A collaborative approach in teaching Inquiries, Investigations and Immersion

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Abstract. Teaching research suited to the level of understanding of the students is one of the problems that arises since the implementation of senior high school programs. Teachers felt that the students find difficulty in understanding the concepts, processes, and principles of research. To address this, a lesson study was carried on from this study which aimed to determine how lesson study helps the research teachers in delivering the lessons in Inquiries, Investigations, and Immersion (3I's) subject. Moreover, it also aimed to determine how the students learned their lessons. This is practical action research of three research teachers who followed the principles of lesson study for twelve research lessons that last for two months. Five sections from Grade 12 students were the participants of this study selected purposely based on the results of the diagnostic test in 3I's and examinations in practical research II. Multiple data collection methods were employed like the semi-structured interview, classroom observation, open-ended questionnaires, and journals of the teachers as rich sources of data. The study revealed that lesson study can enhance the teaching of the students. Although there is a positive side in teaching using this approach, some negative situations arise and are analyzed in this study.

Keywords: lesson study, Inquiries, Investigations, and Immersion (3I's), research subject, senior high school

1. Introduction

Teachers' collaboration in delivering the lesson effectively is a great endeavor because the more minds involved, the better the outcomes may come. There are several ways of practicing teachers' collaboration to deliver the curriculum effectively. One of these practices is called Lesson Study. Using Lesson Study, it allows the teachers to reflect on their teaching methods and strategies together with colleagues, which will make them better teachers sooner or later (Fernandez, Cannon, & Chokshi, 2003). The process of lesson study develops a critical lens for the teachers to see the learning process from the eyes of their students (Gillies Gillies, Mcmillan, Stillwell, & Waller, 2010). Moreover, it facilitates the sharing of ideas towards the continuous professional growth of teachers.

The lesson study (LS) approach is a method of professional development practiced by three to six teachers that inspires them to reflect on their teaching practices through a cyclical process of collaborative lesson planning, observing, and examining students' learning (Anfara, Lenski, & Caskey, 2009). Fernandez, Cannon, & Chokshi, (2003) stressed out that LS is an embracing and interconnected process for examining practices wherein

teachers use it to work as a team to examine instructional challenges and determine how to apply the solution to achieve teaching goals. It originated in Japan and spread widely to other countries in past years (Lewis & Lee, 2017). Usually, it lasts weeks or months as teachers meet to talk about the classroom problem, construct the lesson properly, observe while one teacher is teaching, and meet to discuss student learning through examining the students' outcomes (Elipane, 2011). During the meetings, teachers actively define the classroom problem, discussing different instructional interventions and collaborating knowledge about how those interventions are suited to the learning needs of the students. As a result of the discussions, teachers construct a lesson plan that is the result of collaborative wisdom and experiences of the teachers to reach the set learning goals.

This study is anchored on the situated learning theory of Lave, & Wenger (1991) proposed that learning is a social process wherein knowledge is co-constructed individually. In LS, learning occurs when a group of teachers collaborates on lesson development for their actual classroom teaching. Both teachers and students learn better if the lessons were planned by a group of teachers thinking about the same objectives. LS is a cyclic process by which teachers work as one by identifying learning goals or problems for the lesson, work collaboratively in developing a lesson plan, implement the lesson with an observation by colleagues, reflect on the teaching-learning process, and revise the lesson afterward (Stigler & Hiebert, 1999).

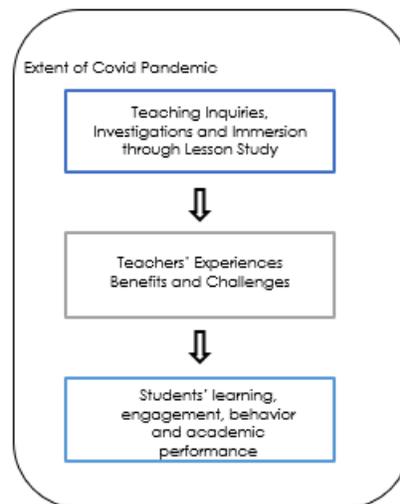


Figure 1. Conceptual Framework

LS is a powerful tool in the teaching and learning process and it is used in all learners (Lee, 2008; Fernandez, 2002, de Hitta-Catalan and Treyes, 2013). Gillies, Mcmillan, Stillweel, & Waller (2010) develops materials for LS. The advantages of LS include intellectual engagement, cooperation, reflection, collaboration, improved teachers' professional teaching strategies, networking skills, writing a lesson plan, classroom management, self-efficacy and positive attitudes on teaching. On other hand, time management to collaborate with their colleagues and for workload, overcoming of fear to be observed

by colleagues, and critical analysis of their teaching practice are the disadvantages of it (Fernandez, 2002; Kanellopoulou & Darra, 2019; Bütün, 2019; Ogegbo, Gaigher, & Salagaram, 2019; Ronda, 2013; Lee, 2008; Gillies, Mcmillan, Stillwell, & Waller, 2010). Xu & Pedder (2014) listed general difficulties in implementing LS in their meta-analysis such as: (1) finding time to carry out intensive studies through LS; (2) an extra workload for teachers for the implementation of LS; (3) insufficient support from school administration to guarantee the sustainability of LS practices; (4) the practice of collaboration among teachers is not substantiated; and (5) cost of implementation. Hervas (2021) mentioned that there are insufficient papers in practice, teaching and learning, professional practice and idiosyncrasies toward LS.

The Inquiries, Investigations, and Immersion (3I's) is the last research subject of Grade 12 students for senior high school regardless of track and strand. It belongs to applied subjects where students are expected to conduct and defend group research by undertaking a rigorous process as the manifestation of their acquired research skills from Practical Research 1 and 2. The course aims to develop critical thinking and problem-solving skills of the students through qualitative or quantitative research relative to their interest and preferred specialization. However, despite all efforts of research teachers in delivering the lessons effectively, students are still incapable of researching in the local context. As a remedy to the above scenario, research teachers find ways to teach or reteach the concepts, principles, and processes of research. Although, the challenge for the teachers is the manner of delivering the lesson appropriately suited to the level of understanding of the students. For this reason, this study was conducted. The study aimed to determine how lesson study helps the research teachers in delivering the lessons. Moreover, it also aimed to determine how lesson study helps the students to learn research lessons. How do the students learn their research lessons through lesson study? What happens to students' engagement, behavior and academic performance after the implementation of lesson study? What are the experiences of the teachers in terms of benefits and challenges to deliver the lesson effectively and efficiently through lesson study? To what extent does the lesson study help the teachers in delivering the lessons especially in this pandemic time?

2. Methodology

The study used practical action research which considered the experiences of both teachers and students, students' engagement in lesson study and performance is described qualitatively. Fraenkel & Wallen (2010) defined practical action research as a method for the purpose of addressing a specific classroom, school or community problem. The study used Grade 12 Humanities and Social Sciences (HUMSS) and Technical-Vocational Livelihood (TVL) students as the participants of the study because these groups usually show poor academic performance in research subjects. Moreover, purposive sampling was employed to determine the Grade 12 sections as the participants based on the result of mean per section (MPS) in Practical Research 2 first semester school year 2019-2020 and diagnostic test in 3I's. One of four sections under HUMSS and four of seventeen sections under TVL were considered as participants.

The figure in the next page shows the processes of the lesson study used in this study (Hervas, 2021). The defining process involves identifying the classroom problem in teaching 3I's subject through sharing of experiences and analysis of test results, while the planning is the brainstorming of the teachers in crafting the research lessons from planning the lesson up to drafting the lesson plan and instructional materials. The selection of lesson content, strategies, and teaching methods was made in this phase. Twelve lessons were made by following the daily lesson plan format from DepEd and considering the curriculum guide. In the teaching and observing phase, one teacher taught the lessons while the others and student teachers were observing the students' engagement, behavior, and learning process using the predetermined instruments. Post-conferences were done right after the observation. The teacher was asked to make a journal reflecting his teaching and lesson learned on that day, while students who failed in formative assessment underwent interviews by student teachers to elicit suggestions on how to improve the lesson. In reflecting and sharing, a weekly meeting was conducted to discuss the lesson learned by the teachers, students' responses from the interview, and how the next lesson would be taught appropriately suited to the level of understanding of the students. Revision of lesson plans and instructional materials were done right after the teaching demonstration based on observation, reflection and students' suggestions.

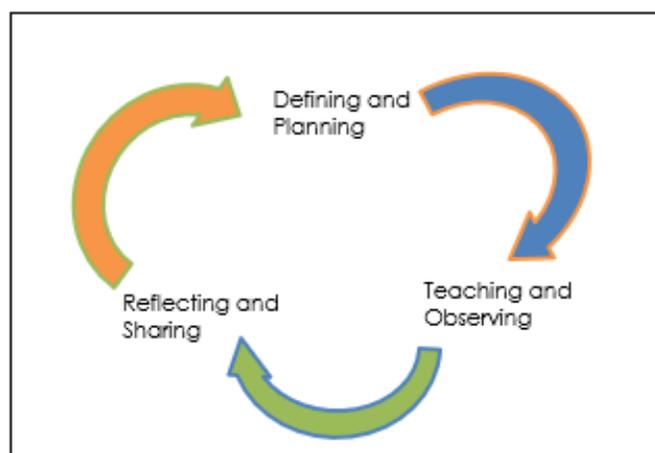


Figure 2. Operational Framework

Each research lesson was based on the curriculum guide with 80 minutes span because the subject covers two periods daily for two months with 100 minutes per day using the scheme of 3 day-lessons and 2-day flexible learning activities where the students are free to conduct or write their research work with little guidance of teachers. The 3-day lessons served as the time where the teaching and observing phase was done, while the 2-day lessons were left for the students to work independently so that they could work at their own pace in doing their research paper. The remaining 20 minutes was used for the teacher's reflections and the students' interviews. Moreover, pilot testing of lesson study was conducted to Grade 12 non-participants students for one week. Data collected from this were considered in revising the research lessons.

The research instruments such as interview guide questions, observation guides, reflection sheet, and questionnaires were formulated by three teachers relevant to the research objectives to elicit necessary data. Consent for the parents and assent for the students

were secured before the start of the study. In addition, classroom observations were conducted to see the actual teaching and learning process, while teachers' daily reflection and the result of periodical examination were also considered through the process of analysis as supporting documents. After two months, an open-ended questionnaire was distributed to the students to elicit data about their learning.

Qualitative data from observation, interview and reflection were analyzed through thematic analysis where the transcripts were written into papers and identification of related codes was done. Subsequently, the groupings of similar codes called a concept were finished (Krauss & Putra, 2005). Researchers read and reread the transcript using MaxQDA, highlighting the important words so that the codes were seen. The codes were collected to form themes. After the data analysis, member checking was considered by consulting the participants about the accuracy and completeness of their ideas included in this study. Suggestions from the participants were also considered to make this study more comprehensible. For the quantitative part, frequency, percentage and mean were measured to support the qualitative findings to this study.

3. Results and Discussion

The experiences of the students can be summarized using four points.

The students' understanding varies from their perspective. The students can understand the lessons in 31's by recalling, student-factor, and teacher-factor. Based on the interview of student-observer, there are some students who do not want the lesson and they are requesting for the teacher to make lively lessons. They are disinterested in the lesson and distracted by their devices. As they observed, the students are using cellphones during the class. The student-observer requested the teacher to confiscate those devices from the students for a short time during the class. One student requested the teacher to be strict in using the devices for them to pay attention and become interested. There are some students sleeping in the class. This number is limited to some students. Fortunately, a greater percentage of the students who are interested in the teacher keep on listening to him. There are lessons which students are interested in, but not all lessons. If the students are interested, they are quiet in the class. The teacher is still the main player in lesson study. The students observe the attitude of the teacher then his knowledge content. They recommended the teacher give unexpected seat works, be on time, and create non-stress lessons. The students also encountered some issues regarding instructional time. There are some sessions where the teacher came late to class hence they requested the teacher to be on time so that the teacher would not rush the lesson. The students knew that the teacher is doing his best by giving considerations and relating the lesson to the situation of the students. One student said that he observed that the teacher is very patient in transferring knowledge to students. The students identified that if the teacher is knowledgeable then he/she executed clear teaching and he/she maximized the learning materials that he/she have. The student partly understood the lesson due to being sleepy, being late, or they are requesting for more examples. The class is noisy if they are not interested in the lesson. Some of the students are not listening and keep on talking with each other. Some students were late in class, the discussion was interrupted

due to late comers. As one of the interviews said, the teacher should be strict with late comers.

Another interview said that she cannot understand the lesson because the lesson is given in a single pace instead of self-paced, they forgot, they are not listening, and they are not focused on learning the topic. She added they are too busy with so many things. It seems that they have a lot of things to do and forget to listen to their teachers. It seems that the students forgot everything about their past lessons. They failed to know the terms. The students become disinterested in the lesson if the teacher does his lesson at a fast pace. Some students are not listening, they are having their own business. To address the problem, the teacher-observers gave assessment and individual recitation. As the class went on, the students were answering in chorus, the teacher failed to identify the student active in the class. The teacher should roam around the room, teach properly, and lessen the time for story telling so that the teacher can finish the lesson on time. The students were requesting to observe time limitations of the lesson and start the class with energizer especially for afternoon class. The student answered in the open-ended question that the teacher should encourage the students toward his/her studies through home visit and letting his/her students understand the lesson. The students can understand the lesson through the teacher's appraisal for the high score and giving incentives. Several students said that the teacher is good at teaching and not boring. For the student-factor, the students read, and they listen to the teacher.

The students have some recommendations for lesson-study. The students requested the team for more motivation for the students. The students also requested the teachers to do their best to change their attitude. The students also have recommendations for the change in preparation, execution, assessment, and classroom discipline. For preparation, focus on students and give activities. The teacher may add some activities for the students not to be bored in class. Do some activities for the student not to be bored and sleepy.

The teacher and students are the main players in conducting lesson study. The teacher's attitude, knowledge and usage of learning materials is a great factor in learning using lesson study. The teacher is doing his best by giving consideration. The teacher relates to the students. They know that the teacher is knowledgeable because he gives clear teaching, and he can organize his ideas in teaching. One student said that the teacher is very patient in transferring knowledge to students. The teacher's attitude, knowledge and usage of learning materials are great factors in learning using lesson study.

The learning from the lesson study can be applied in other subjects and can develop critical thinking. The students believed that lesson study helped them understand the lesson, it is related to the topic, and the learning that they have can be applied to other subjects. Lesson study can develop critical thinking. The students applied it in their outputs. The topics in 3Is can help me understand other subjects.

The student-observer said that LS gave them the experience in their future job. They can foresee it and become aware of the situations inside the classroom. It sums up all the

things that they need to do when they enter the world of teaching. The observations that they do come up with several suggestions toward LS. It serves as an eye-opener in students' attitudes. Sometimes, the students making fun of the subject and the teacher encountered uncontrolled events which they considered as a challenge. During the meetings, the student observers were shy and afraid with their comments to the research teachers, but they are curious with the things that the teachers are talking about and they know that it is important. Those student observers are now taking up education as a course in college. LS strengthens their dream of being a teacher and it helps them to pursue the course. Of course, other factors affect their choice such as their role while playing during their younger age and teacher influences from elementary.

One research teacher said that the student observers suggest the activity of instance in conceptual framework discussion. IT should actually be created inside the classroom. She also added that TVL students are not serious in taking 3I's subject. In this connection, the student observer should be strict in TVL classes. The teacher also suggested not to do groupings in the class instead use individual activity. LS makes it realize for the student-observer that students are not serious with the subject. In individual activity, the teacher can focus on the students , and he can respond appropriately to the output of the students.

Table 1: LS Lessons and Percentage of the Student who Obtained Less than 75% Mastery of the Lesson

LS Lesson	% of Students Who Obtained 75% Mastery
1. IMRAD format	10%
2. Research Problem, Topic and Title	39%
3. Writing an Introduction of a Research Paper	11%
4. Scope and Delimitation, Significance of the study, Definition of Terms	0%
5. Writing Review of Related Literature	29%
6. Review of Related Studies and Synthesis	14%
7. Research Methods	20%
8. Data Collection Methods and Ethics in Research	6%
9. Data Presentation and Analysis of Quantitative Data	12%
10. Data Presentation and Analysis of Qualitative Data	5%
11. Conceptual Framework of Qualitative Research	4%

12. Writing Summary of Findings, Conclusions and Recommendations	2%
Average	12.67%

Still the research problem, topic and title is the most difficult topic discussed by the teachers, and lesson 4 obtained the 100% mastery of the lesson. The overall difficulty is 12.67% but this measure is just a formative test given to the students. It is similar to Slingerland, Borghouts, Laurijssens, Eijck, Remmers, & Weeldenburg (2021) where they consider the students who obtained 75% least mastery of the lesson based on formative assessment. It also shows a gradual decrease in the number of students as time moves on due to the difficulties addressed through meeting and constant communication of the teachers which is a good indicator of LS. According to Slingerland et.al (2021), LL is designed not to have a perfect lesson but it is used to discuss the problematic aspect of teaching through a team and it reduces professional isolation. It enables the teachers to tap ideas and share knowledge from colleagues.

4. Conclusion

In light of all the comments and suggestions of the students toward LS, truly the research teachers show appreciation for the honesty and genuine comments of teacher-observer, student-observer, research teachers, and of course for the students. This activity really executed the top-bottom from the curriculum to bottom-up where all positive and negative comments were gathered from the field. We are looking forward to continuing this approach especially in this pandemic. The collaborative nature of LS can help the teachers, the HUMSS students taking their immersion and the students who are the end stakeholder of the process. Future research should be implemented using this approach and the future studies can also consider the development of online materials using LS. This activity is hurtful but challenging where younger teachers should be experienced.

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Educational Action Research in Laboratory Schools: Concepts, Practices and Future Directions

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Abstract. Laboratory Schools exist as an avenue for training, education and research in connection with Teacher Education Institutions. However, explicit evidence in the Philippines that will prove lab schools as an avenue for educational action research is still lacking. It is in this context that this study explored actual experiences and narratives, and future aspirations of educational action researchers situated in Bicol University College of Education Integrated laboratory School. This study also investigated the conceptions and misconceptions of educational action research in laboratory schools. Findings revealed that despite the length of service as a permanent faculty member, without the support needed as teacher-researcher, respondents of this study still identified themselves as a beginning researcher. Different constructs and themes were explored that lead to the development of a conceptual model illustrating the felt needs and goals of educational action researchers in the laboratory school. Findings revealed five major provision that the institution could provide. These particular features, as shared by the respondents, will be contributory to the enrichment of the research culture in the laboratory school specifically in conducting action research. Significantly, the dominant theme was anchored on trainings and mentoring, which reflect the collaborative nature of educational action research.

Keywords: Constructivist Grounded Theory, Teacher-Researcher, Thematic Analysis, Classroom-Based Research, Research Culture

Introduction

Educational Action Research has been a pivotal endeavour in improving the quality of education across the world. Thus, research, in general, is always identified as one of the key components to be assessed in World University rankings (Sharma, 2011; Shin, 2012; Times Higher Education, 1990; Wang, 2011). Though there has not been a well-established measure in terms of research production in higher universities (Altbach, 2004; Salmi, 2009; Shattock, 2017), HEIs particularly normal schools in the Philippines strive to at least published articles in peer-reviewed journals and be recognized in this practice with a Western dominated ideology. In addition, the World Declaration on Higher Education for the Twenty-first Century (UNESCO, 1998) and the Higher Education Act of 1994 both emphasized the importance of research in higher education. The declaration specifically accents that "State policies must promote and develop research, which is a necessary

feature of all higher education systems, in all disciplines, including the human and social sciences and arts, given their relevance for development" (UNESCO, 1998).

Particularly, under the Philippine Development Plan (PDP) 2017, the government acknowledges the importance of improving the quality of higher and technical education, research innovation, and extension services for equity and global competitiveness. For this reason, the importance of research culture in laboratory schools will be a key contributory factor in enriching research practices in Higher Education Institutions because Laboratory Schools in its simplest essence exists as an avenue for training, education and research (Wilcox-Herzog & McLaren, 2012) in connection with Teacher Education Institutions.

Further, Teacher Education Institutions (TEIs) such as the Bicol University College of Education is a pivotal avenue for pedagogical research endeavors that influence education research not only in the region and the country but in the global community as well. Thus, this present study aimed to advance the understanding of educational action research in the laboratory school environment of the Philippines, particularly in terms of conceptions and misconceptions by laboratory school teachers and the factors that contribute to the establishment of culture of research in a specific school in South Luzon which is the Bicol University College of Education Integrated Laboratory School. Specifically, within the Filipino context, the objectives of this research were to: a) determine the characteristics of teacher-researchers in relationship to demographic factors found in a BUCEILS; b) identify the different views of teachers about educational action research and the factors that contribute to the establishment of research culture in laboratory schools whether it supports previous findings; and c) integrate futures studies practices by the participants themselves to identify their own vision of a research culture in laboratory schools.

1.1 Educational Action Research in Laboratory Schools

Laboratory Schools play an important role in progressing pedagogical practices (Cucchiara, 2010). Universities and normal schools/teacher training institutions opened laboratory schools under its research and/or teacher-training purposes. In a globalized community, two major tensions are being experienced by laboratory schools today. First, is the pressure for laboratory schools to be models for other schools to imitate. However, elite populations in lab schools and its abundant resources tend to hinder public schools from really adapting lab school practices. And Second is the multiple goals of laboratory school apart from educating the students which often leads to conflicting and divided attention of faculty and administrators.

Cassidy & Sanders (2010) disclosed in their paper that the existence of laboratory schools are documented as early as the 17th century, in Europe as well as Japan, where they are known as "attached schools" (Hayo, 1993). The extensive growth of laboratory schools was observed in the United States between the mid-19th and 20th centuries. This is also the season were lab schools was considered to play a major role in educational action research. John Dewey (1859-1952), psychologist and philosopher, founded one of the most famous lab school in Chicago in 1904.

Many educational experiments with rigorous evaluation were implemented in laboratory schools. For instance, the theory of mind was developed by John Flavell (Wilcox-Herzog & McLaren, 2012) and the famous marshmallow test developed by Walter Mischel that uncovered the link between the ability to postpone gratification and the chances of success in life were all set in laboratory schools. Further, lab school set up a system that combines the skills of researchers to propose an "evidence-based" pedagogy.

With the increasing demand for collaboration in global community, the International Association of Laboratory and University Affiliated Schools (IALS) was established. Majority of the affiliated are North American and Japanese lab schools.

However, current systems miss the school's entitlement of the key word 'laboratory'. Contemporary university laboratory schools 'appear to serve primarily to provide a superior educational experience to the children of faculty and other middle-class families' (Tanner, 1997). In addition, the issue of elite student body continues to trouble researchers and educators in conducting innovative practices worth imitating by the public. The demise of laboratory schools is evident in the lack of provided for faculty to innovate or take risks that public schools are not allowed to do

1.2 The Reinvented Futures Triangle and Cognitive Model for BUCEILS

To fully identify what factors affected, affects and might affect the conceptions and misconceptions of educational action research, the reinvented futures triangle was created.

Considering that the aim of this research is to advance the understanding of educational action research in a laboratory school and establish a research culture, Future Studies (Inayatullah, S, 2013) was adopted as one of the major processes to be undertaken by the participants themselves. After a deliberate conduct of systematized literature review, Profiling and Interview took place followed by several futures studies' activities.

The most desirable future which is to enable BU to be a research driven university after fully understanding the perspectives of its teacher-researchers and the factors that contribute to research practices or the lack of it, not only producing research for the sake of publication and recognition but more importantly for continuous innovation and impact in the local and global community. Factors such as culture of research (who conducts research, how often, what type of studies is prevalent); mindset and attitude towards research practices (are the members of academic community responsive and act in terms of research issues); and politics and funding (the stereotype and the rigid processes) were affecting the movement of innovation towards the preferred future. The present push (world university rankings, world standards, Philippines' and ASEAN's Qualifications Framework) are the trends that primarily affects the system. On the other hand, what is pulling the institution are: the 21st Century Skills to be acquired not only by students but by professionals; the constant technological innovation and discovery of knowledge in the global context; and the vision of using research outputs or research-based products as a major source of research funding in the academe.

Further, the Cognitive Model (Beck Institute, n.d.) was also utilize to identify the perceptions of Lab School Faculty Members in conducting educational action research.

The adoption of the cognitive model helped the respondents to identify their own thoughts, emotions and behaviors towards research activities.

1.3 Brief Description of Methodologies

Following the maximal variation purposive sampling, teachers in BUCE Laboratory Schools were the participants of this study after they submit their assent. All throughout the study, various activities adhering to the standards of constructivist grounded theory (CGT) were conducted. CGT is a qualitative methodology that seeks to explore and fully understand varied processes, for this research, the practices of conducting educational action research and varied perceptions that influence the common process (Charmaz, 2007). Interviews, focus group discussions and open-ended documentations were the methods used to collect data. As the name suggests, the analysis was 'grounded' on the data collected from the participants' own experiences through the statements given as respondents of this study. In addition, among the types of grounded theory, the researcher utilized the 'constructivist' approach due to the reflexive nature of this study. The model is not only constructed by the researcher but greatly influenced by the respondents as well.

The goal of this study is to develop a conceptual model or theory that describes the social process of conducting research in laboratory school thus, CGT is the most appropriate approach. Using this approach does not mean that the researcher will develop a new 'Theory' but rather to add nuance to existing knowledge and deeper understanding of educational action research in laboratory school that could also inform policies and current practices.

1.4 Ethical Considerations

This study was conducted in accordance with the ethical principles stipulated in the National Ethical Guidelines for Health and Health-Related Research (2017) by the Philippine Health Research Ethics Board and the university's existing research protocols. The researcher made sure that privacy and confidentiality were maintained. Ultimately the researcher adhered to and personally discern ethical procedures in every situation during the whole conduct of the study and while writing this paper.

3. Educational Action Research Profile

Before presenting the identified constructs, the characteristics of teacher-researchers in relationship to demographic factors found in a BUCEILS were identified. Among the 31 respondents, 65% (n=20) are female while 35% (n=11) are male. In terms of their academic rank, 45% (n=14) are Instructors, 32% (n=10) of the respondents are Assistant Professors, and the remaining 23% (n=7) are Associate Professors. The years of service as a permanent faculty member of the laboratory school also varies which ranges from 7 months to 34 years.

On another note, in terms of the research involvement and participation to research-related trainings and/or seminars, among the respondents only 23% (n=7) were able to identify their involvement either as a study leader or implementer. Also only 9% (n=3)

among the faculty members identified their attendance to research-related trainings and seminars. Significantly, 19% (n=6) explicitly stated that they have not experienced any research-related trainings or have been involved in a research program, project or study.

4. Educational Action Research Views and Experiences

After presenting the profile of teacher-researchers in BUCEILS, the constructs were derived from the identified concepts taken from the significant statement of each respondent. The constructs were used to further identify the theme that will contribute to the construction of a grounded theory particularly a teacher-researcher model in laboratory school.

Teacher-Researchers from BUCEILS understand what educational action research is based on the 8 constructs derived from their statement. Dominantly, they shared that educational action research is a systematic process, an in-depth study, or an analysis of data which brings enlightenment, solves problem, allows for innovation and improvement and discovery or development of best practices in teaching and learning. Though they fully understand the process and the functions of educational action research, the respondents still identify themselves as beginning researchers. In particular they used the terms: greenhorn, novice and neophyte. Also limited exposure, inexperienced and not being identified were also shared in the discussion. On an important note, despite being beginners, the willingness to learn as exemplified by their positive attitude towards research were also emphasized by the respondents. To fully understand the perceptions of the respondents in conducting educational action research, the cognitive model was adopted to allow them to just freely share and validate their own thoughts, emotions and actions toward conducting research.

The dominant thoughts, emotions and actions as reported by the respondents were negative towards action research. Action Research is one of the common methodologies utilized by teachers. Laboratory School Teachers tend to withdraw or avoid doing research mainly because of fear, stress and anxiety which is influenced by their thoughts. Most of the teacher-researcher in this study perceived research to be a difficult endeavor which takes much time aggravated by the lack of knowledge or technical skills to do research at all.

5. Educational Action Research Views and Experiences

After determining the research profile of the respondents and their common conceptions and misconceptions about research and being an educational action researcher, the researcher allowed them to share their goals and commitment to become the researcher that they aspire to be.

The constructs derived from the statements of the goal and commitment of BUCEILS Teacher-Researcher is comprehensively explored in this study. Though few of the faculty members will retire soon, they still expressed their willingness to learn and help the budding researchers in making an impact through evidence-based teaching and learning. Continuous Improvement is the major commitment or step in achieving the main goal of not only completing but publishing their completed research in five years-

time. The respondents explicitly shared their ideas of pursuing graduate studies, developing the habit of reading journal articles, attending trainings, seminars and workshops that will further enhance their research skills. Also, most respondents underscored the importance of mentoring in their research engagements. Affiliating with experts and other institutions will lighten the journey of educational action research. Ultimately, the commitment to contribute to the educational field through research begins by realigning the thoughts and actions towards the goal for greater good.

Finally, to achieve the goal of not only completing research but publishing and truly improving the teaching-learning process in basic education, the respondents identified their needs as educational action researchers and how the administration could help to address these needs, in one way or another. The dominant construct for this theme is the need for technical support which massively speaks about training on conducting and publishing quality research. It is followed by the demand to be given ample time. As shared by the respondents, their teaching workload oftentimes become a hindrance to conducting quality studies. Mentoring and Access to Databases and conducive workstations are also identified as a need by the Lab. School teacher-researchers. Detailed data on the support and needs as disclosed by the participants are presented in Figure 1.

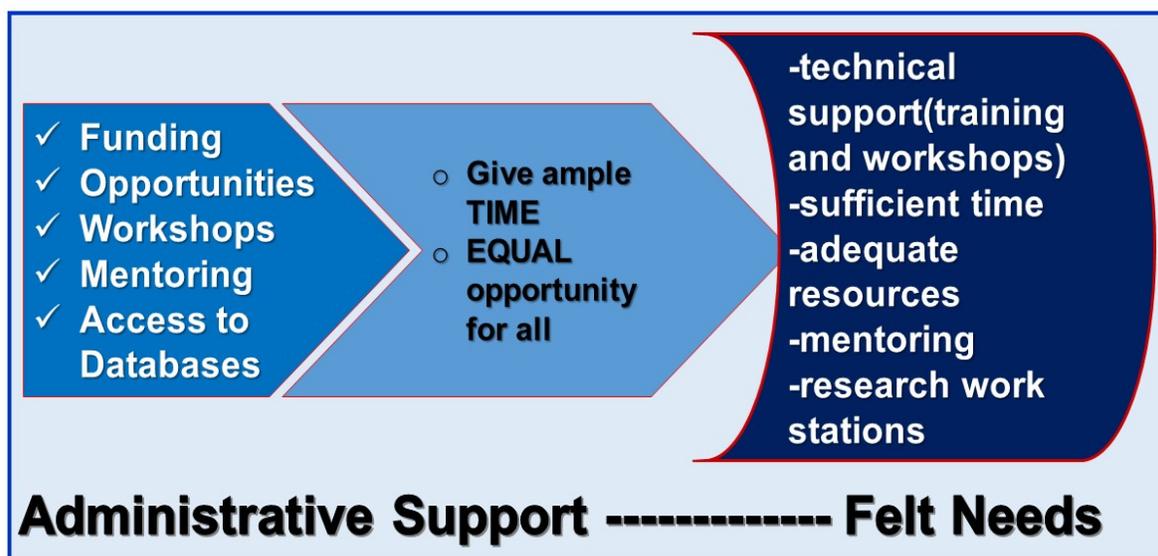


Figure 1. Felt Needs and Administrative Support

6. Conclusions and Recommendation

Researching the Educational-Action-Researchers using the Constructivist Grounded Theory Approach reveals the heart of the faculty members of BUCEILS. The willingness to learn and participate emanates from the result of the FGD. Therefore, the institution has

a big role to play in providing the necessary support identified in this study. The collaborative culture of educational action research is yet to be explored in the ILS based on the result of this study. Thus, further research focusing on research practices and initiatives should be taken into consideration. Comprehensive study on the Researcher's Profile using varied approaches could also be explored by other qualitative researchers.

Lastly, the main conclusion that can be drawn from this study as shown in Figure 2, considering the context of laboratory school, is that maintaining and sustaining quality research outputs that impact the society entails effective and efficient people work. As reflected in the identified themes, the focus is on the needed support not only physical or material resources but mostly mentoring, collaboration and administrative support which is mainly influenced both by the teacher-researchers' and administrators' personal qualities and perspectives which could lead to a healthy research culture.

Based on the findings and conclusions of this study, it is highly recommended to validate the model developed in this research by allowing other higher education institutions and/or laboratory schools to use and evaluate it.

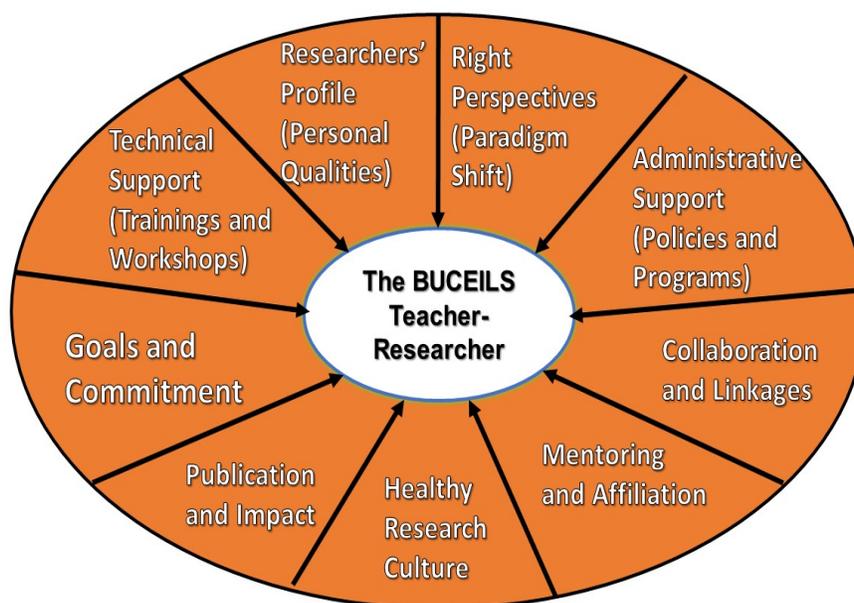


Figure 2. The BUCEILS Teacher-Researcher Model

This study which presents the conceptions and misconceptions of BUCEILS Faculty Members towards educational action research was utilized by the unit to implement programs and projects that encourage faculty members to conduct research and enhance the research culture of the college. The result contributed to the crafting of educational action research programs both for teachers and students. Ultimately, this study became a material for reflection of the different stakeholders from students,

parents, teachers and administration to enhance the current practices to promote research culture in the institution.

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Codifying School Management Program Plan: A Retroactive Mitigation

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Abstract. In the organization, new administration shift focus, modify goals, restructure roles and responsibilities, and engaged personal practices of leadership management that create unforeseen challenges. In school-based management, the factors that affect institutional plans from leadership practices are illustrated and observed in the re-bumping of school administrators, the rotation of the school heads and principals on or during the school year. Thus, in determining the importance and implication of leadership in an organizational change and admitting the fact that leadership practices demand so much time towards organizational change and for sustainable success. At the roof of possible different notion on this case study, the author goes through evaluating the challenges through (1) the factors that would be considered in the urgent change of leadership; (2) and the mitigating process on the possible impact of new leadership towards the organization. As a result, it modifies other factor of the institutional processes that changes work environment directly from the field. Thus, the countermeasure is formulated as initial stage in the study that identify the problem and its mitigated plan in adaptation of policy through establishing codification of the organizational structure that are not institutionalized. It would go through two strategic codifications that would be coded with different distinct leadership potential. The Strategic Directions A (Retroactive mitigation plan 2020) and Strategic Redirections B (Outlining mitigated direction plan 2020) analyzed through leadership framework of Bolman on structural-symbolic which are suitable to the organizational structure and in the current challenges as a guide. In the impending issue of this study were formulated the structural countermeasure of the possibilities in the urgent change of leadership and its management. It was a structure in the school-based management that go through all considerations and now be part of the organizational roadmap.

Keywords : school management, codification, retroactive mitigation

1 Introduction

In most cases leaders define the direction of their organizations. This study has a direct refinement on the different phases of leadership in a school organizational management. It recognizes the effect of shifting in the school administrators which has its potent sources of encounter that affect mostly on employees' achievements, work objectives, and professional goal. As observed, new administration in school organizations also shifted focus, modify goals, restructure roles and responsibilities, and engaged leadership preference that creates unexpected challenges in the field.

Prevalently, it was observed that every time new administrator will be designated in the school, bring along with its leadership practices and style that he/she knows can creates a diverse influence in the field that refines the on-going program plan and practices which was mostly enforce. It is also perceived that a new administrator as he/she cross boundaries to different environment is with him/her the institutional experience that he/she apply to various managerial environments. In a study, that leadership has a direct cause and effect relationship upon organizations and their success. It also proves that leaders determine values, culture, change tolerance and employee motivation as it shapes institutional strategies including their execution and effectiveness (German, 2010).

In addition, most of the leaders' goals is the effective managerial practice, however, one thing in common is they want an impact that those around them will reap the maximum benefit in the organization's resources, including its most vital and expensive: its people. This leadership panache is a factor that affects institutional environment and other common practices among the people in the academic field. Gruban (2003) cited that the fact that leadership competencies have a great relation with successful organizational change and a competent leader may prove more effective in managing the change process successfully.

Accordingly, different leadership traits may be classified as autocratic, democratic, bureaucratic, charismatic, etc. Others in the field may find leadership practices inconsiderate that doesn't align to the interest of the teacher's individual plan of the employees in the field.

In the school-based management, the factors that affect institutional plans from leadership practices are illustrated and observed in the re-bumping of school administrator, on or during the school year. Thus, in knowing the importance and implication of leadership in an organizational change and admitting the fact that leadership practices demand so much of time towards organizational change and for sustainable success. At the roof of possible different notion on this case study, the researcher goes through evaluating the challenges through (1) the factors that will be considered in the urgent change of leadership; (2) and the mitigating process on possible impact of new leadership towards the organization.

Thus, through the following problem observe as focus to the study. The study will set through and paradigm the four frames of leadership by Bolman as guide to analyze the existing problem. The result will be a guide to establish initial recommendation to the school management and as a guide to create a mitigation in the current administration.

2 Strategy/Intervention

An initial stage presented as a countermeasure to create a mitigated initiative to the possible disputes. Towards the institution between employees and the leadership practice involving sudden decisions or recalibration as newly appointed administrator. As it establishes initiatives, it goes through the gaps as one factor in penetrating the mitigated initiatives.

The researcher was trying to capture everything undesirable that comes out every time a new administrator comes in. From the organization's perspective and its environment, natural change is not realized without the institutional outcome. Other outcomes were already mitigated and maybe learned along the way through inclusion to the school-based management system. The author now recognizes the institutional development, which is still unpuzzled on the clarity of solution and is still a continuous institutional measure.

The study establishes corrective mitigated prevention on the existing problems from its negatively changing corporate culture. Thus, the mitigated countermeasures as initial output will be cultivated to create a workplace that is high performing entity.

The countermeasures were trying to establish a codification of organizational policy that is not institutionalized. As suggested, it would be through retroactive mitigation as an autonomous arrangement on behalf of a representative/designates who can assess work output and, through legislative function, purposively propose in definable sequence. By mitigating this output, it will resolve to contest questions like the forgoing result of a sudden change of administration.

The two strategic codifications will be a direction on two different leadership potential that will be recognized as a strategic plan to enhance the forgoing issue.

Codifying Strategic direction

Table 1. Strategic Directions A (Retroactive mitigation plan 2020)

Institutional Standard	The quorum will be set as institutionalized standard through memorandum agreement and certified by the current principal, so the new incoming administrators will set down for a proactive proposal.		
Strategic Goal	Build confident in time (the interpersonal prospects) as to	Ensure the implementation of institutional quorum that involves parties should present the	Enhancement Program Plan / Developmental Plan

	enhance optimum communication.	quality performance (outstanding output and needs of improvement output) and the baseline of current programs.	
Strategic Objectives	By the time new administrator take place to the management, set time to observe, listen and follow. This will categorize the approach you will used to corroborate progress.	The quorum should be in corroboration of the members of the board and accord to the institutionalized standards that are participated with the chairman of SBM, the faculty presidents and the coordinators.	On the factors of the administrators: If the output is already practice with outstanding performance, the administrators will enhance with the corroboration of the project managers. Those programs with the needs of improvement will be sorted and be developed.
	(the faculty club president, the coordinators and chairman of SBM continue to motivate and build confidence towards work performance) Work performance will give initial impressions and mitigate barriers from the new administrator.	The presenter of output will exhibit the outstanding performance as basis for enhancement or developmental plan for the areas need to improve.	On the factors of the employees, leader should have the natural impulses on leadership: The administrator decision on his/her wisdom to shift focus, modify goals, restructure the system and responsibilities, and develop new form of improvement. It has its aspiration to be competent and prove more effective.

Table 2. Strategic Redirections B (Outlining mitigated direction plan 2020)

<p>Institutional Standard</p>	<p>The quorum will be set as institutionalized standard through memorandum agreement and certified by the current principal, so the new incoming administrators will set down for a proactive proposal.</p> <p>On the possibilities of: the new administrator will enact an immediate shift that is beyond the constituted retroactive matters.</p>		
<p>Strategic Goal</p>	<p>Contribute meaningful potentials that gives impact to the community you're working and for the new administrator.</p>	<p>Promote and exercise institutional right.</p>	<p>Enhancement Program plan/ Developmental Plan</p>
<p>Strategic Objectives</p>	<p>Create standard procedure and practice that contribute explicit output to the newly designated administrator.</p>	<p>Create communication on the quorum that are already instituted in the school organization.</p>	<p>Proposal from both parties will be review and assessed possible outcome. This way it will create better mitigation to the incoming admin and the employees who engage organizational practice.</p>
	<p>Design proposition and status quo of the programs that was directly affected on the immediate change by the new administrator.</p>	<p>Present through narrative output on issues of change of direction and display on-going facts.</p>	<p>On the nature of tenacious direction, one should abide and reiterate plan on the next quarter.</p> <p>Developmental plan will be on the new administrative direction.</p>

3 Problem Statement

This study purposively aimed and answer the following question;

1. What are the outcome of the unexpected rotation of school administrators?
2. What strategy direction will the school management apply during unexpected rotation of school administrators?

4 Research Methods

The study used descriptive research design. It is descriptive since it sought to describe the essential points of the problem. This point are gathered perception through open question through self interview and observation that laid out initial strategic direction.

5 Intervention Design

The study distinguished the four frames of leadership by Bolman as guide and a paradigm to the study. This framework equipped the study with the principles of effective leadership through building empathy and understanding the value of truth behind others' perspectives. The codification of the school management practices resolves the occurring discomfort towards the new administrators which was observed and analyze.

Through the process, at first; the study comprehended everything that there should be a more focus to established on strengthening the symbolic figure of leadership. So, it harnesses the employee's attention and needs to a more democratic in nature. It was also guided with some largescale views which were used to non-antagonistic clash between the teachers and the administrators.

Furthermore, from Bolman framework of leadership, designed the structural and symbolic in shaping the concept of mitigation process to assist undesirable institutional conflicts. The codification on retroactive mitigation will be structural in focus that assist institutional gaps between leadership practices and its output to the teachers from the sudden change of leadership plan. It should be in black and white to acknowledge standard process of the organization. This will contain the symbolic frame as a strategic behavior that should be institutionalized with some guidelines on illustrating democratic agreement, harnessing the foundation of the institution as well as the welfare that illustrates democratic confrontation to the teachers. Through this way leadership will limit the outcome of the autocratic leadership elements.

6 Results and Discussion

The study evaluates the various responses of teachers through questions and interviews on the experience of the change of administration.

Table 3. Interview results from the teachers

<i>Common views of teachers' responses on the outcome of constant change of administration?</i>	
Res. 1: this kind of leadership setting that changes everything upon its appointment will bring uncertainties of our personal and institutional goal in which are not align to his/her work priorities	13 or 12% out of 105 respondents consider administrators brings along with its leadership preference.

<p>Res. 2: a leader sometimes doesn't consider the goals and objective that was already established in the school management.</p>	<p>15 or the 14% out of the 105 respondents confirm that new administrators establish organizational goal that for them are effective.</p>
<p>Res. 3: Sometimes it results to change and chance for teachers work different work objective and goal.</p>	<p>21 or 20% out of the 105 teachers are passive of the possible challenges of the new administrators</p>

Table 3 showed that there are 28 teachers who are affected towards the unpredicted rotation of school administrators. This illustrate a factor on a possible cause of disputes towards the school management. However, variation of administrative leadership practice might also orient or recreate program focus which are vertically align to others teachers work objective.

6 Conclusion

Based on the results the following was analyzed and concluded through implication of the initial stage on institutionalizing intervention.

The impending issue that was formulated on this study was a countermeasure of the possibilities in the urgent change of leadership and its management. The study brought speculation that bring forth the structural and symbolic direction as a good motive or a good direction that fit also to the direction of the incoming administrators.

The initial stage was constructed in the school-based management that will go through all consideration that appears.

The study investigates the possible contribution to the outcome of the problem appear. This will be intervene with a retroactive mitigation to the different leadership practices while anticipating the possible encounters. In addition, the new strategy is an initial stage that was considered for adjustment and redirection.

Finally, it concludes through the institutional parameters acknowledged the Strategic Directions for the retroactive mitigation plan. However, if the incoming leaders also are impulsive to his/her leadership practices then the strategic redirections can be applied only to outline mitigated direction plan meaning the effectiveness of this strategy will be redirected again to a direction that eventually takes time to implement.

7 Recommendation

Based on the data findings of the conclusion an intervention of the study was recommended through an action plan.

Table 4. Action plan

<i>Areas of concern</i>	<i>Objective</i>	<i>Strategies</i>	<i>Person Involved</i>	<i>Time-Frame</i>	<i>Expected Output</i>	<i>Remarks</i>
The quorum set to the incoming administrators	To show the output and be approved through MOA /institutionalized legislation from the present administrators	Presentati on of proposal in the current administr ators that present the possible problem and the mitigated strategic plan.	Present Administr ator, chairman of SBM, coordinat or, and the faculty club president	School year 2020-2021	The proposal of mitigating strategic plan will be certified and be institutional ized.	The proposal was a prelimina ry collabor ative concept from teachers, chairman , coordina tors.
The mitigating strategic plan	To exercise the Strategic Directions A or Strategic Redirection s B.	On the administr ators who enact through his own dispositio n, Strategic Redirecti on B will be applied. On the administr ated who nourished current initiative,	Administr ator, chairman of SBM, coordinat or, and the faculty club president	On the time of turn over ceremony . The incoming administra tor will set down on the current administra tors.	The mitigating strategy will be demonstra ted by the current administrat or, so the incoming will then expect for the allocation of presentatio n of different output.	The 2 nd meeting of the incoming administr ator will be a presentat ion. Thus, the resident involve person will collect gather data for their prelimina ry

		strategic direction A will be equipped .				proposals .
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Design and Demonstration of a Mobile Cloud Network in Teaching Science and Mathematics

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Abstract.

Science and Mathematics education in the Philippines much like other countries, faces challenges as students are in need of up to date content and effective modalities to learn them. With recent studies and international assessments revealing that Filipino learners lag behind in terms of Science and Mathematics competency, there is a need to develop ways to effectively teach these subjects. This, together with recent limitations in the educational system brought by the COVID-19 pandemic, puts Filipino learners at disadvantage. Educational institutions are compelled to adopt blended learning methods to reach millions of students worldwide. Despite various models of blended learning being implemented, internet connectivity along with other technological requirements is still a major problem in most of the country. This study demonstrates the use of a Mobile Cloud system devised for providing offline cloud-based resources and applications in cases when there is a weak internet connection and related infrastructure or an absence thereof. This paper also focuses on demonstrating an enriched virtual model, a combination of remote and face to face instruction in teaching selected topics in both Science and Mathematics. Feedback questionnaires and focus group discussions were used to evaluate the effectiveness of the demonstration. Findings suggest that the Mobile Cloud Network allows teachers to facilitate the curation, creation and organizing of learning materials to be used in both synchronous and asynchronous learning modes. Participants in the teaching demonstrations also showed positive perception in using the Mobile Cloud Network in engaging in Science and Mathematics content.

1. Introduction

The COVID-19 pandemic drastically changed the educational landscape. Now more than ever, educational institutions are compelled to adopt blended learning methods to reach millions of students worldwide [1][2][3]. Though it had been persisting for some time, this situation challenges educational institutions in terms of their readiness, technological resources, and human resources. This poses a threat to equity among learners [4].

Before the pandemic, Science and Mathematics education in the country has its challenges. Trends in International Mathematics and Science Study (TIMSS) 2019 results

reveal that there is a 62 points drop from the average in our Philippines Mathematics benchmark average from 2003. The country's Science average score dropped 83 points from the 2003 benchmark as well. A recent large scale assessment from Program for International Student Assessment (PISA) reported similar results. It was reported that among 79 countries that participated in the assessment, of which the Philippines participated the first time, 15 year-old Filipinos ranked second to the last in both Mathematics and Science. Filipino learners scored an average of 353 points in Mathematics and 357 Points in Science. This is compared to more than 590 point average of the top country in both fields. Moreover, the Philippines has one of the largest percentage of low performers among socio-economically advantaged and disadvantaged students.

With more than 21 million public school students, full digitization of education is still a major challenge. Aside from one with the slowest internet connection in SouthEast Asia, 45% of Filipinos and 74% of public schools do not have access to the internet. Only about 40% of the country's public high schools have computers with internet connectivity potential [5] The pandemic challenged the country's educational system to become more digital, which most learners are not prepared for [6].

As a response, the government resorted to the distribution of printed modules. Though there had been issues on quality and diversity, it is still the primary learning modality to equitably reach learners [7]. However, interactive materials typically found in synchronous classes like eBooks, videos, audio lectures, simulation among others are only limited to those who can access it via the internet. Given this situation, there is a crucial need for the majority of the learners to access quality, diverse and interactive resources to be distributed with cost-effective and practical ways as possible.

In areas with bandwidth constraints, an offline network with preloaded content that can be accessed locally shows a great potential. A low-cost mobile cloud infrastructure can be installed utilizing single board computers to act as content servers and network monitors [8][9]. This mobile cloud network could offer access to a variety of learning resources with limited bandwidth and connectivity.

This paper aims to answer the following research questions:

- What mobile cloud network architecture can be designed to facilitate offline access of learning content in both asynchronous and synchronous learning modality?
- What is the initial performance of the Mobile Cloud network in an asynchronous learning modality?
- How to users perceive the effect of the mobile network in the synchronous learning modality?
- What is the quality of the mobile learning network?

This paper proposes the design and demonstration of an offline network to access preloaded open educational content using mobile cloud in a network system intended for both synchronous and asynchronous learning modes. For the asynchronous learning mode, the proposed system was deployed on a school and served as a kiosk capable of providing offline access to students. For the synchronous learning modality, a portable mobile system was demonstrated in a mock-up class composed of teachers. The paper also presents how the mobile cloud network can host an open-source educational platform capable of curating learning resources.

2 RELATED WORK

2.1 Near Cloud Technology

The emergence of Mobile Cloud computing has also produced different use cases and architecture. Most of these applications are internet based or rely on online access for optimization. However, with limited bandwidth to deliver learning content this paper inclines the use of Near Cloud technology. One of the prominent features of the Near Cloud technology is the configuration capability for services such as proxy servers, caching server, database, torrent managers, and communication services which allows optimization of any bandwidth available [18]. The nodes of the Near Cloud system are low cost, low power, and low maintenance and it serves as a Gateway to the Internet [19]. Its architecture has a caching system with terabytes worth of storage which serves as an easily deployable, efficient, and resilient network capable of collecting and transmitting data [20]. A recent study [21] demonstrated the implementation of the near cloud architecture for Rural Area Connectivity and Data Processing. Figure 1 shows how clients use the Near Cloud system in a number of ways.

2.2 Mesh Network

To be able to extend its capabilities as an effective communications tool, a wireless mesh network of Near Cloud nodes with terabyte worth of storage was implemented. With this the research in Wireless Mesh Network (WMN) has been very active [22]. A wireless mesh network is characterized by wireless routers which carry-out function of routing packs through the network and client devices connecting to the wireless routers [23]. WMN is a rapidly deployable, efficient and resilient system for collection, transmission and processing of information to be used in everyday scenarios such as digital education [24]. Through these wireless mesh networks, the Internet can be relayed through different locations without the need for a wired backbone [25]. This means that data can easily be accessed from one location to another. A research [26] in Germany studied the reliable low latency Wireless Mesh Network. It demonstrated how mesh networks retain all of their flows without any service interruption. It was able to show that streams kept flowing without service interruption, delay or packet loss as long as there are alternative paths.

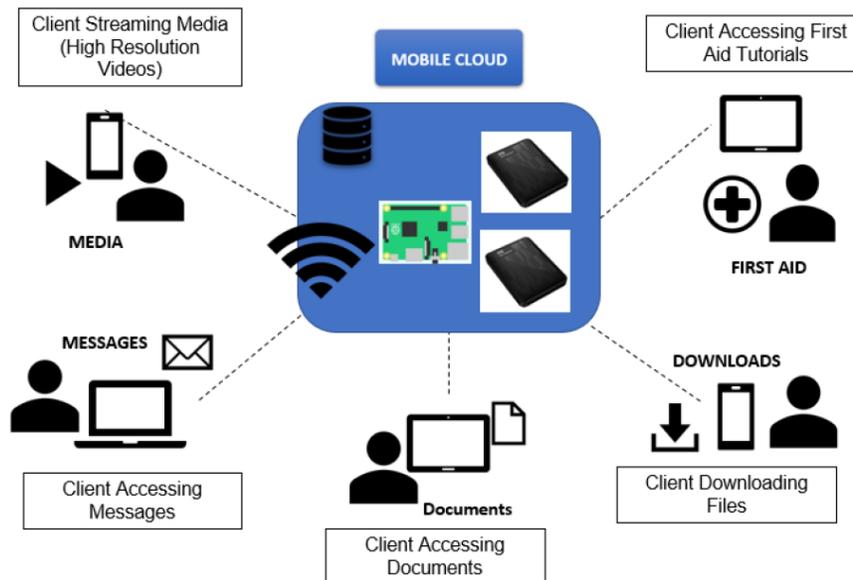


Figure 1: | Wireless mesh network of Near Cloud Nodes

2.3 Delay Tolerant Network

Wireless mesh Networks have high mobility, heterogeneous condition and intermittent network connectivity, data packets drop during wireless communications, which can be problematic in disaster situations [28]. A Delay Tolerant Network technology is used to solve this problem. Delay tolerant technology is a technology that addresses the problem of transmitting data on intermittent network connectivity. It is an intermittent connection network that uses the chance of encountering by node movement to complete communication and adopts the "storage-carry-forward" method for message delivery [29]. The data would be moved from one place to another until it finally reached its destination [30]. This shows that implementing a well-designed DTN can function as an alternative communication platform at wireless communication-absent environments. A study [31] in Indonesia which uses Delay Tolerant Network Based internet services for Remote areas using train systems prove that DTN overcomes problems associated with intermittent connectivity, long delay, asymmetric data rates and high error rates by using the store-and-forward method. The key idea is to facilitate transport on a hop-by-bop basis rather than end-to-end streaming. In such a large-scale disaster, delay-tolerant networking (DTN) is expected to be used as an alternative communication method when the regular communication infrastructure deteriorates [32].

3. Methodology

3.1 Hardware

The mobile cloud network architecture is designed to be portable, low power and low cost yet capable of the necessary processing capabilities for its implementation. For this, 3 units of Raspberry Pi 3B+ were utilized as servers. It was selected primarily due to its adherence to the network architecture's use case design. It is a low cost, low power and portable Single Board Computer (SBC) and has ample processing power for the network design. Each unit has 1Gb LPDDR2 SDRAM, Gigabit Ethernet port and 2.4GHz and 5GHz 802.11b/g/n/ac Wi-Fi. Each unit was installed with the latest Raspberry Pi operating system in a 16 Gb memory card [10].

Though the Raspberry Pi computers can be enabled and programmed as access points, it was not utilized in the design. The network was designed to host high capacity processing and multiple devices can connect to it at the same time. For this, the Raspberry Pi servers were connected to the network using a D-Link AC2100 Wi-Fi Gigabit router that can provide high bandwidth (up to 300 Mbps for 2.4 GHz and 1733 Mbps for 5GHz) [11]. To extend the range covered by the network, Google Wi-Fi Mesh AC1200 (1200 Mbps throughput over 2.4 and 5 Ghz) was used. The network design utilized three of these devices for a stable and wireless mesh network.

For the classroom demonstration the researcher used a Raspberry Pi 4B as the main portable server. The unit has 4Gb LPDDR2 SDRAM, Gigabit Ethernet port and 2.4GHz and 5GHz 802.11b/g/n/ac Wi-Fi. It was installed with the latest Raspberry Pi operating system in a 1Tb ssd hard disk [10]. To be more portable, a power supply device was installed that can carry two 3500 mAh 18650 rechargeable batteries. Though the Raspberry Pi computers can be enabled and programmed as access points, it was not utilized in the design. Instead, the prototype utilized one TP-link Archer T3U AC1300 Mini Wireless multiple user, multiple input, multiple output as a Wi-Fi adapter.

3.2. Software

The Mobile Cloud network's main feature is to facilitate educational materials for students as clients using low-cost, open source and use friendly software. Data collection and usage statistics should also be provided. With this, Kolibri was installed as the main application that the stakeholders can access. Kolibri is an open-source application that creates an offline server to deliver curated educational resources. It is designed for offline use that packages learning that reduces megabytes worth of data while retaining the original quality. As a standalone LMS, it also features a customizable digital OER curriculum with tools such as exam creation, exercises and differentiated assignment content. It is not necessary for this application to be connected to the internet regularly since updates and latest contents can be synced and shared once it connects with another Kolibri installed device with updated software connected in the same network. Updates can also be manually added via hard drives or flash drives [12].

Another open-source application that was utilized was Nginx. The software is an open-source, low memory usage and high performing network server. Since high network traffic is expected in the Mobile Cloud Network, Nginx, as load balancer, uses asynchronous, event-driven web requests [13]. For network monitoring, one of the Raspberry Pi Servers was installed with Nagios Enterprise Monitoring Server (NEMS). NEMS is a pre-configured easy to deploy Nagios Core monitoring software designed to run on microcomputers[14]. Lastly, Iperf3 was installed for testing the performance of the network. For this study, Iperf3 was used to measure bandwidth, data transfer and other parameters [15].

4. Results and Discussion

The Mobile Cloud network was designed to have three servers. As seen in Figure 1, two of these servers are installed with the Kolibri application for learning resource distribution and management and one server is dedicated for network monitoring. These servers have a wired connection to the gigabit router that can support 2.4 Ghz and 5Ghz bandwidth simultaneously. Wi-Fi mesh devices were used to extend the network range. The design utilized three Wi-Fi mesh devices, one of which has wired connection to the router while the rest supported a wireless mesh network. The network is designed to be installed in areas such as school grounds or community centers where students are expected to receive and submit printed learning modules. In these areas physical distancing and other COVID-19 related protocols are enforced in these areas. With the Mobile Cloud deployment, students are expected to connect to the network and have access to the materials anytime within a wider range. In this study, the Mobile Cloud network was installed and deployed in a certain school.

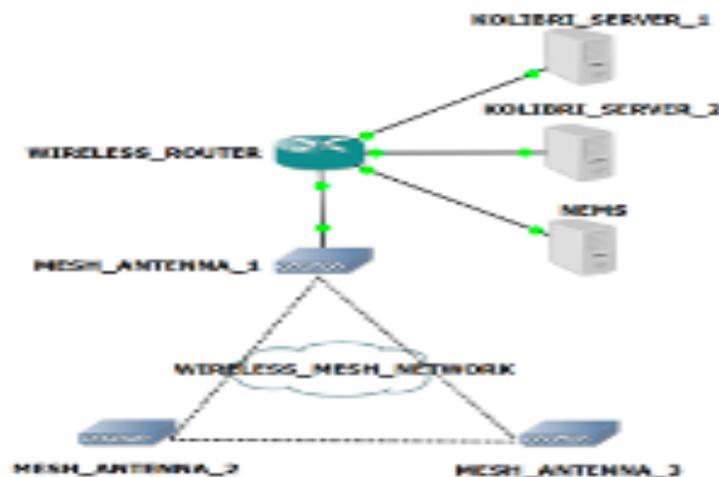


Figure 2: Mobile Cloud Network Diagram

4.1 Accessing the Mobile Cloud Network

The network was designed to contain two servers for content distribution one as the main server and one back-up server. Both servers have identical content and features. In case of high network traffic the client can switch from the main server. Table 1 shows the Mobile Cloud network server configuration. To be able to connect to the network a client could either connect to the router or the mesh Wi-Fi using any Android, IOS, PC, Linux or Mac devices . The network offers both 2.4 or 5 Ghz Wi-Fi bandwidth simultaneously. Once connected, the client can run the Kolibri application via opening a browser and typing the ip address of the server (Table 1) adding :8080 port. The default port for Kolibri is 8080. For example, connecting to the main server, a client will type 192.168.0.200:8080 on the internet browser. They will be directed to the landing page of application of which they can start accessing the learning materials (Figure 3). For the network administrator, NEMS can be accessed in the network via typing <https://nems.local:9090/> in the browser.

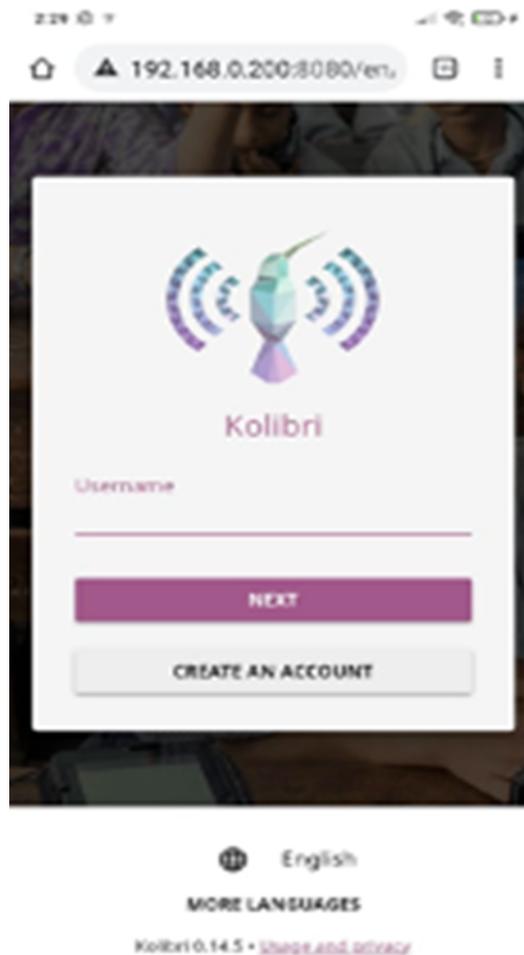


Figure 3: Landing page of the Kolibri Software

Table 1: Mobile Cloud Network Configuration

	Interface	Network	IP Address	IP Addressing
Kolibri Server 1	eth0	Server	192.168.0.200	static
Kolibri Server 2	eth0	Server	192.168.0.202	static
NEMS Server	eth0	Server	192.168.0.204	static
Mesh Antenna 1	eth0	Client	192.168.0.206	dynamic
	wlan1	Mesh	192.168.86.1	dynamic
Mesh Antenna 2	wlan0	Client		dynamic
	wlan1	Mesh	192.168.86.1	dynamic
Mesh Antenna 3	wlan0	Client		dynamic
	wlan1	Mesh	192.168.86.1	dynamic

4.2 Characterizing the Mobile Cloud Network

The initial performance of the network was measured in terms of capacity throughput, network speed and receive signal level. Four key sampling areas within the network were identified. Figure 3 shows the designated module distribution and waiting areas of which students can connect to the network following the COVID-19 physical distancing protocols. For the first test, capacity throughput was measured for the 2.4 Ghz connection of the mobile cloud network for sixty (60) seconds. The tests were done from one (1) to twenty (20) devices each streaming a 360p Mp4 Video (Figure 4). Based on the figure, the mobile cloud performs consistently even as more devices connect to the same network. Since one of the main features of Kolibri is file compression, it is noteworthy that the resources to be loaded in the network should be converted to lower bitrates to facilitate faster streaming.

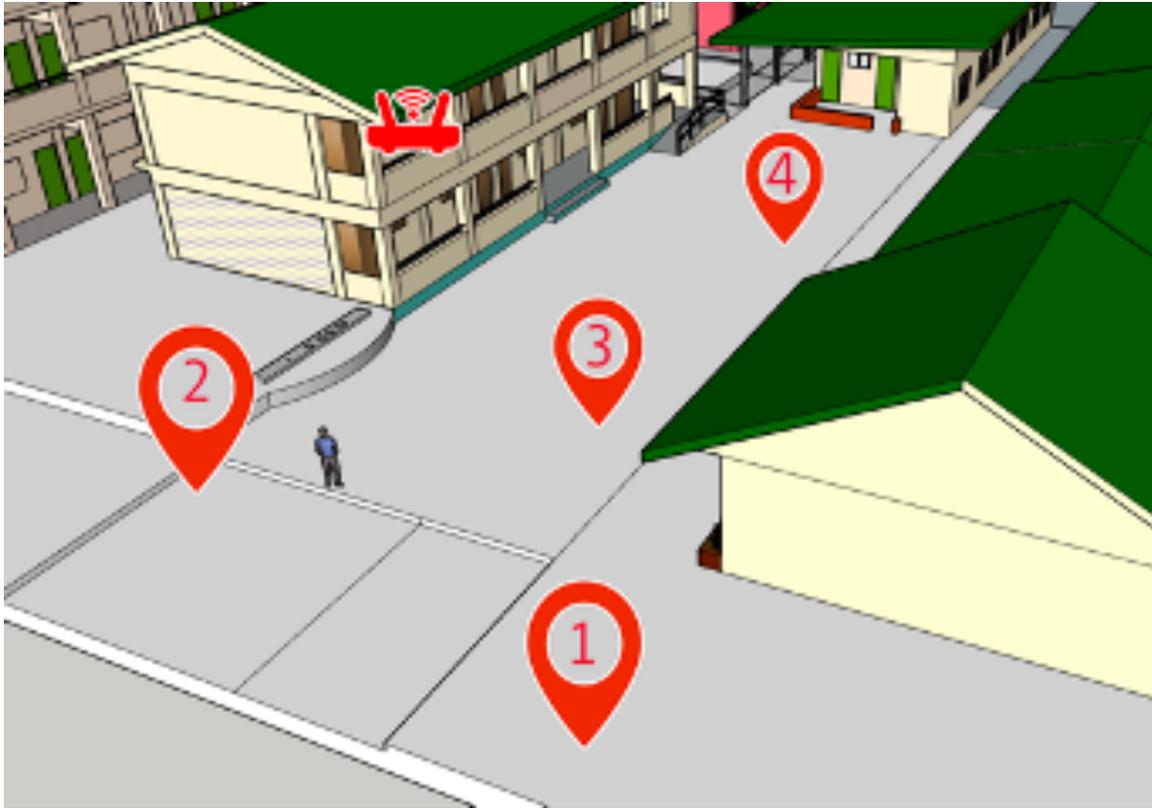


Figure 4: Gigabit router location, module distribution and student waiting areas.

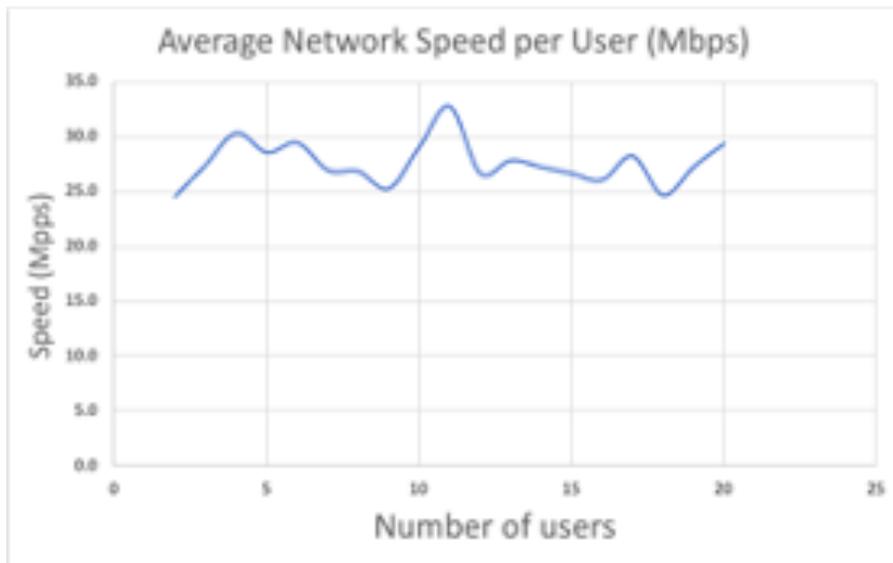


Figure 5: Graph of number of users vs. average network speed

The next test measures are the bandwidth of the network. Bandwidth were sampled in key areas in the network range and ran for sixty (60) seconds. Signal strength in terms of received signal level (RSL) in these locations were also sampled (Table 2). As seen in Figure 5, comparison of network speeds in the 4 key locations showed high variability. Network speeds vary from 8 Mbps to 43 Mbps with location 3 having the least throughput. Variations in the throughput are likely caused by adjacent channel interferences of which the current study did not capture. Network bandwidth in the 5Ghz band (Figure 6) showed a consistent output. One limitation of the Mobile Cloud network would be the client's device capacity. Accessing large amounts of data in the network would require a stable and faster network performance that could be limited on the device of the user.

Table 2: Mobile Cloud network received signal level in the key locations.

	RSL 2.4Ghz (Channel 6)	RSL 5Ghz (Channel 149)
Location 1	-58 dBm	-49 dBm
Location 2	-65 dBm	-64 dBm
Location 3	-62 dBm	-57 dBm
Location 4	-54 dBm	- 52 dBm



Figure 6: Comparison of network speeds at 2.4Ghz of the four key locations in the school.

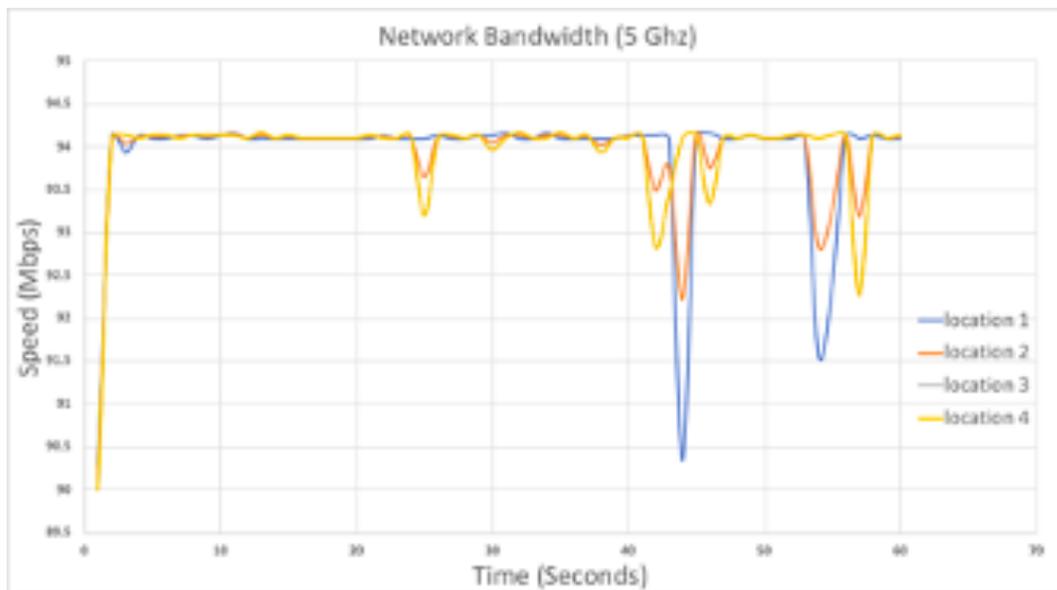


Figure 7: Comparison of network speeds at 5Ghz of the four key locations in the school.

5. Science and Mathematics Content Delivery and Management

The Mobile Cloud network has the capacity to store gigabytes worth of data suitable for educational use cases. In the implementation of the system, Kolibri was chosen as the main application for educational resource curation and delivery. As mentioned, two servers were dedicated for accessing content. The network was designed to facilitate supplementary materials to the target learners. Following the policy guidelines of the Department of Education [16], digital file sharing of the modules should only be done by authorized personnel only. Hence, the deployment of the Mobile Cloud network focused on the distribution and access of supplementary open educational resources. Supplementary materials such as videos, eBooks, simulations and practice assessments were aligned to the Most Essential Learning Competencies (MELC) provided by the Department of Education. Out of the eight subjects in the secondary education curriculum, English, Mathematics, Science and Social Studies supplementary materials were prioritized due to the availability of the resources in the Kolibri database.

Learning resources in Kolibri are organized into channels. Listed channels are curated and openly licensed by educational foundations worldwide. In this study, content in the different subjects were curated into channels through Kolibri Studio. This is an online tool used to organize resources into learning channels. Resources from Ck-12 and Khan Academy were curated and downloaded to the Raspberry Pi Kolibri servers.

5.1 Implementation of the OER in the Mobile Cloud Network

To facilitate the deployment of the network, teachers and the school administrators were given a demonstration of the network capabilities. Printed manuals were also distributed to the students and parents as well as establishing a social media group for receiving inquiries. It was proposed that during printed module distribution, the students and parents could connect to the network and interact with the supplementary materials. Through the network, they can view and download the supplementary learning resources.

5.2 Evaluating the Mobile Cloud Network

To evaluate the quality of the Mobile Cloud network an initial assessment was done after the demonstration to the faculty and the school administrators. Teachers were asked to test the network followed by an evaluation. For this, an ana-holistic rubric was designed to appraise the network in terms of the following criteria:

- Design, Visual Appeal and Accuracy
- Alignment to the Standards
- Functionality

- Accessibility and Engagement
- Technicality
- Privacy, Data Protection and Rights
- Social Presence
- Teaching Presence
- Cognitive Presence

The rubrics was derived from pre-existing E-Learning tool evaluation and criteria for determining the quality of instructional materials [17,18]. A set of indicators were assigned to each criterion and was scored using a 4 point Likert scale. Evaluators were asked to identify which of the indicators described is evident in the mobile cloud network. The rating ranges from 1 to 4 for each criterion. The scores are then translated to the following descriptions: Needs Improvement = 1.00 - 1.54; Satisfactory = 1.55- 2.54; Very Satisfactory = 2.55 – 3.54; Excellent= 3.55 – 4.00.

Ten evaluators were randomly selected to evaluate from a group of 30 teachers who participated in the orientation and demonstration of the Mobile Cloud network. Fleiss' kappa was used to determine the level of agreement between multiple evaluators. Fleiss' kappa showed that there was a fair agreement [19] between the teachers' appraisal of the quality of the Mobile Cloud network, $k = .135$ (95% CI, .038 to .232), $p < .05$.

Average ratings showed that 4 criteria are excellent and 5 are very satisfactory. Design, visual appeal and accuracy has an average rating of 3.00 = "Very Satisfactory", alignment to the standards has 3.20 = "Very Satisfactory", functionality has 3.20 = "Very Satisfactory", accessibility and engagement 2.80 = "Satisfactory", technicality has 3.80 = "Excellent", privacy, data protection and rights has 3.60 = "Excellent", social presence has 3.40 = "Very Satisfactory", teaching presence has 3.80 = "Excellent", and cognitive presence 3.60 = "Excellent".

5.3 Classroom Synchronous Demonstration

As part of the enhanced virtual framework a synchronous class demonstration was done. Herewith, a portable version of the mobile cloud was set-up in classroom of 20 participating teachers. Two lessons were conducted one for Science that focused on Respiratory System and one for Mathematics that focused on Variations. The teachers uploaded the contents of the lesson in the mobile cloud (videos and practice tests) and students were asked to view and access them using their devices. After the mock teaching session they were asked to answer the Classroom Environment Evaluation Scale

(Yang & Huang, 2015). In this study, the scale was used to determine the perceived physical environment in a technology rich classroom. There were five dimensions that were measured that the scale provided, namely: Showing, Manageable, Accessible, Tracking and Enhancement. The overall Physical Classroom Environment was computed from the means of the dimensions. We also calculated the mean value of each dimension and correlate it with the computed Physical Environment Mean. Among the five dimensions Accessibility has the least correlation with the Physical Classroom Environment. It might be pointed out that students in the demonstration are still finding it difficult to connect and manipulate the application provided in the mobile server.

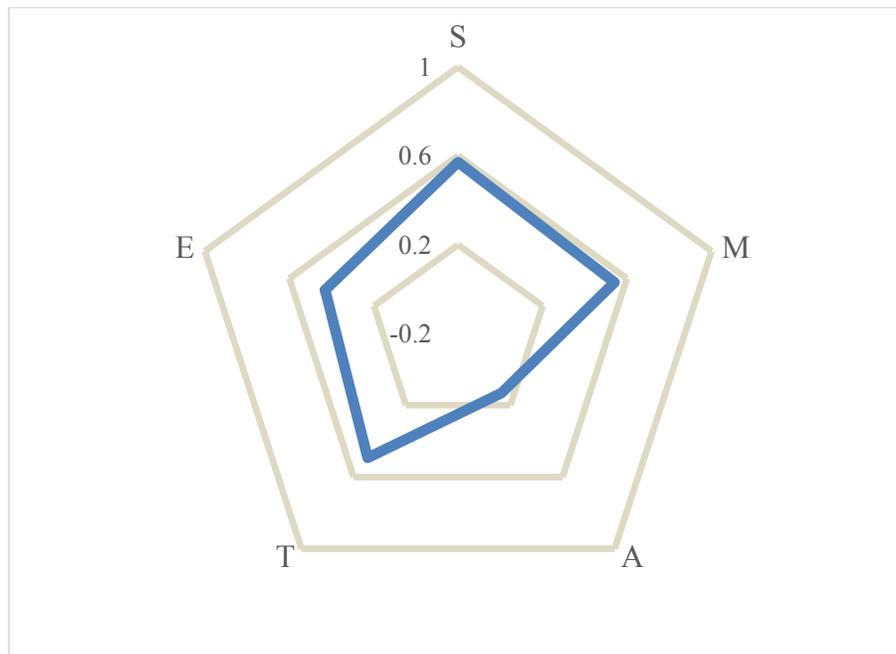


Figure 8: Status of the Physical Classroom Environment

6. Conclusion

Access to educational resources in times when face-to-face learning modalities are limited that puts struggling learners on a disadvantage. The availability of competent learning resources should be made available to all learners despite financial and technological difficulties. This study proposes a platform for the distribution of educational resources that can be locally accessed within the learners' community. The Mobile Cloud architecture in mesh network offers a low-cost, low technology requirement, easily deployable and wide range of compatibility system for the distribution of open educational resources. The system consists mainly of low-cost, low-power consumption

and readily available single board computers installed with open source applications for curating and creating learning content. Initial performance tests show that the network architecture is efficient in data transfer and accommodating synchronized usage. The mobile cloud network's quality was evaluated as more than adequate in the delivery and management of the supplementary learning materials. The system showed reliable and efficient asynchronous delivery of learning content in a community based setting. Future developments on the optimization of the proposed system can enable wider coverage and improved content distribution.

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Healthcare Preparedness of Employees and BS Nursing Students of Manuel V. Gallego Foundation Colleges, Inc (MVGFCI) Cabanatuan City, Philippines for a Return to School during the Covid-19 Pandemic

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Abstract. This study is a participative action research aimed to find out the health care preparation of the students and MVGFCI employees for a return to school, to know their challenges, and to come up with a recommendation to improve the health care preparation of the school during the COVID-19 pandemic crisis. A mixed-method research design was used and there were forty (40) MVGFCI employees and twelve (12) BSN students who participated in this study. Based on the result, employees of MVGFCI responded that "Hazard Recognition" got the highest next is "Safe Work Practices" followed by "Environmental Cleaning and Disinfecting" and last is the by "Access to Public Health Communication". Meanwhile, all the health protocols were practiced all the time by the Nursing students. The highest of which is continuing practicing physical distancing and maintaining good personal hygiene. It is worth noting that most of the protocols laid out by the DOH and the IATF are followed all the time. Both the employees addressed the challenges they experienced during their preparation on returning to work, these are limited social activities and PPE's, difficulty in maintaining physical distancing, feeling of anxiety both for the threat of virus and possible losing of job, and difficulty in wearing PPE.

Keywords: health care preparation, COVID-19, return to school

1 Introduction

From the beginning of the outbreak of COVID 19, the utmost importance in all organizations and business establishments is the health and well-being of its constituents amidst this global health event. As the situation continues to evolve, focusing on preparedness and efforts to maintain a safe environment to sustain its operation must be implemented. The Manuel V. Gallego Foundation Colleges, Inc. (MVGFCI), is wanting to find out the preparedness of the institute along with its faculty and staff as well its students while education is being delivered without compromising the health of everyone.

Health protocols are being developed by concerned government agencies for the safety and welfare of its people. Observing these practices of health preparedness during this pandemic is of importance. Along with this line, emerging decorum has to be observed as indicative of awareness to maintain a safe work environment to sustain the full operation of the institution. Plans which include enabling work from home capabilities, deploying a strategy of coordinating the delivery of services, information drives of best practices, limiting non-essential travel are only a few strategies that we can observe

among business organizations. Notwithstanding the preparedness for health and safety issues which is based upon established infectious disease guidelines and protocols, a robust communications strategy, awareness and education, human resources policies specific to pandemic/health crisis planning, facility preparedness and cleaning standards, social distancing protocols, and other resiliency plans.

Limiting any impact of this health event could affect our service together with our constituents including the students. Therefore, it is essential to ensure that their safety is a major concern and responsibility, hence, it must be given an urgency, otherwise, it may create a bigger problem later.

1.1 Statement of the Problem

This study answered the following questions:

1. To find out the health care preparation for a return to school during the COVID-19 pandemic crisis by:
 - a. Students
 - b. The academic community of MVGFCI
2. To identify challenges experienced during the health care preparation
3. To find out how these challenges were addressed and how these affected the:
 - a. Students
 - b. The academic community of MVGFCI
4. To recommend an action plan to improve the health care preparation for a return to school program during the COVID-19 pandemic crisis.

1.2 Significance of the Study

This study about the Health Care Preparedness for a Return to School during the COVID 19 would be beneficial to the following:

Nursing Faculty Members. The result of the study will help the nursing faculty to be more aggressive and vigilant in applying the different health practices for the safety of themselves and the safety of its clientele.

School Management. The findings of this study will provide baseline information in preparing, formulating, and designing a program that will better help its constituents in their preparation for a return to the school during the pandemic crisis.

Nursing Students. The findings of this study will provide an insight that the health safety practices are not for compliance only but it is worthwhile to adhere to the precautionary measures for their well-being

1.3 Conceptual Framework

As shown in Figure 1, this study aims to find out the health care preparation, the challenges they have experienced while preparing, and the strategies they made. As a result, an intervention plan will be made by the institute

Health care preparations such as hazard recognition, safe work practices, environmental cleaning/disinfecting, access to public health, practicing physical distancing, maintaining good personal hygiene, wearing PPE's, observing stricter precautions, staying at home, and having a healthy lifestyle.

Employees and students identified their challenges experience while preparing for the above health care protocols and listed also the strategies done to address the challenges.

Given those health care protocols, challenges and strategies, an intervention plan has to be made by the institute.

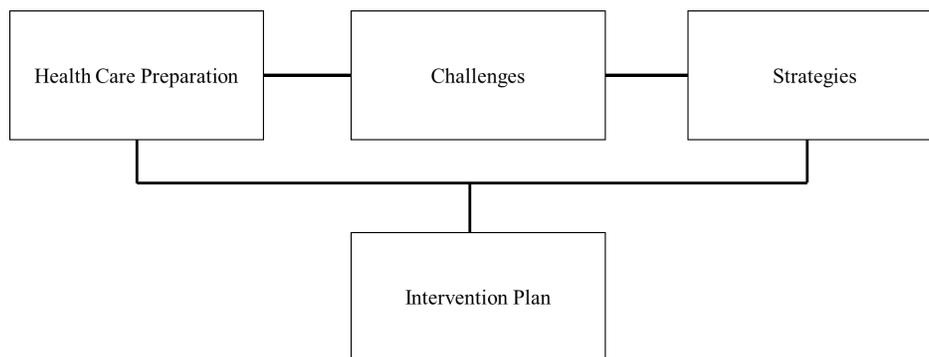


Figure 1. Conceptual Framework

2 Methodology

Mixed methods were used to come up with robust data enough to come up with a rigorous evaluation of the action or implementation of the intervention plan. Through the integration of multiple quantitative and qualitative data sources, mixed methods research design helps ensure better use of the study in other contexts and settings.

The participants of the study involved 40 employees, who came from the different academic and non-academic units of MVGFCI and 12 students from the BS Nursing program across year levels and these were selected using the convenience sampling non-probability method.

The researchers used a self-made questionnaire to answer the questions that aimed to determine the health protocols observed by the faculty and students. Since the researchers of the study made use of mixed methods, answers of the participants with regards to their challenges experienced and come-up strategies were obtained using the qualitative method. Participants' recommendations to their peers about returning to work were also taken into account.

The self-made survey questionnaire was administered with the use of google forms, then this was sent through the different online communication platforms such as e-mail and

Facebook messenger accounts of the participants of the study. On the other hand, an online interview was done with the said participants with regards to the questions about their challenges experienced, strategies done and their recommendations with regards to program implementation about the preparation of MVGFCI employees and students for return to school during the Covid-19 pandemic.

To answer the objectives of the study, different data analyses were used in qualitative and quantitative data. For qualitative data, Thematic Analysis was used to analyze the student's responses to the open-ended questions. Meanwhile, on the quantitative data, descriptive statistics (percentages and frequencies), mean and standard deviation using Statistical Package for the Social Sciences (SPSS) ver. 25 were applied to analyze the numerical data that was gathered through a self-made survey questionnaire.

3 Results

3.1 Health protocols observed by MVGFCI employees and BS Nursing students

Table 1 shows the responses of MVGFCI employees on the COVID-19 pandemic crises. Questions asked were focused on, safe work practices, environmental cleaning, and access to public health. Among these factors, "Hazard Recognition" got the highest mean of 3.54 (sd= 0.72), next is "Safe Work Practices" got a mean of 3.50 (sd=0.80), followed by "Environmental Cleaning and Disinfecting" with a mean of 3.38 (sd= 0.95) and last is the by "Access to Public Health Communication" with a mean of 2.53 (sd= 1.26).

Table 1. Protocols observed by the employees amidst COVID-19

Items	Mean (\bar{x})	Verbal Description
Hazard Recognition		
Understanding their level of occupational risk, and such risks may change their workload to protect them from exposure	3.53	All the time
Everyone is cognizant about community transmission of COVID-19 evolves	3.43	All the time
Aware of measures to control/ preventing from exposure	3.68	All the time
Total	3.54	All the time
Safe work Practices		
Know how to use Personal Protective Materials (wearing of face shields, masks)	3.58	All the time
Frequent handwashing with soap and water for 20 seconds	3.55	All the time

Avoid touching eyes, nose, or mouth with unwashed hands	3.35	All the time
Practice good respiratory etiquette, including covering coughs and sneezes	3.80	All the time
Recognized personal risk factors, Personnel with an underlying condition such as heart or lung disease or diabetes are at risk for developing more serious complications from COVID-19	3.38	All the time
Sick personnel is aware to leave the workplace as soon as possible	3.43	All the time
Mindful to stay at home if sick	3.50	All the time
Seek medical care when necessary	3.40	All the time
Total	3.50	All the time
Environmental Cleaning/disinfecting		
Practice routine cleaning or frequently touched surfaces such as tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, sinks, etc.	3.40	All the time
Cleaning with soap and water (reduces the number of germs, dirt, and impurities on the surface)	3.60	All the time
High-touch surfaces made of plastic or metal, such as grab bars and railings are cleaned routinely.	3.13	Most of the time
Total	3.38	All the time
Access to Public Health Communication		
Have access to RESU (Regional epidemiology surveillance Unit) for networking	2.20	Sometimes
Collaborate with DOH (Department of Health) localities for communicating COVID-19 information	2.43	Sometimes
Have access to COVID-19 website updates	2.98	Most of the time
Total	2.53	Most of the time

Legend:

All the time	3.26 – 4.00	Sometimes	1.76 – 2.50
Most of the time	2.51 – 3.25	Never	1.00 – 1.75

With regards to hazard recognition, employees are aware all the time of measures to control and prevent COVID-19 exposure ($x=3.68$). They understand all the time the level of occupational risks which may change their workload to protect them from exposure obtained a mean of 3.53 while their cognizance about COVID-19 community transmission got the least mean of 3.43. According to [cdc.gov](https://www.cdc.gov), wearing PPE's like a mask can protect us from respiratory droplets that might contain a virus. Wearing a mask is also important when physical distancing is difficult to maintain.

Among safe work practices, the practice of good respiratory etiquette including covering the mouth when coughing or sneezing registered the highest mean of 3.80 which was followed by the use of personal protective materials such as wearing face masks and face shields. Unfortunately, avoidance of touching the eyes, nose, or mouth with unwashed hands got the lowest mean of 3.35 which means that despite practicing good etiquette in coughing and sneezing and the use of protective materials, there's still the possibility of contracting the disease by touching the eyes, nose or mouth with unwashed hands.

Among these safe work practices that obtained low means are as follows: mindful to stay home if sick ($x=3.00$), sick personnel is aware to leave the workplace as much as possible ($x=3.43$); seek medical care when necessary ($x=3.40$) and recognizing personal risk factors ($x=3.38$). The above results are indicative of the employees' willingness to work despite the risk involved when they are in the workplace.

In terms of environmental cleaning and disinfecting, cleaning with soap and water to reduce the number of germs, dirt, and impurities on the surface is the most frequently done ($x=3.60$) while cleaning routinely high touch surfaces made of plastic or metal such as grab bars and railing registered the lowest mean of 3.13. Again, the respondents seem unaware that viruses and other microbial organisms have a higher population in most frequently touched objects/surfaces, thus, it appears that frequent cleaning/disinfecting prevent faster transmission of the carrier of the disease.

Accessing COVID-19 website updates had been the highest response in terms of access to public communication. This means that the social media platform is more preferred rather than collaborating with the DOH in the locality or accessing the Regional Epidemiological Surveillance Unit with means of 2.43 and 2.20, respectively.

Table 2 presents the health protocols followed by the BS Nursing students. Submitting the rapid COVID-19 test is practiced only sometimes ($x=2.0$) while staying at home and going out only for urgent emergency responses and exercise is practiced most of the time with the mean of 3.25 and 3.17, respectively.

Table 2. Health protocols followed by BS Nursing Students

Items	Mean (\bar{x})	Verbal Description
Health Protocols		
Continue practicing physical distancing. Maintaining a distance of at least three feet from other people. Avoiding going to some social gatherings or in crowded places.	4	All the time
Maintain good personal hygiene. Avoiding touching the eyes, nose, and mouth and constantly washing the hands with soap and water. In case these are not available, hand sanitizer with at least 70% alcohol is used.	4	All the time
Clean and disinfect. Using a household disinfectant, clean and disinfect frequently touched surfaces daily. Cleaning of visibility dirty surfaces followed by disinfection is a best practice measure for the prevention of COVID-19.	3.83	All the time
Wear Personal Protective Equipment. Wearing face masks that cover the mouth and nose when going out, or when with other people and never share the used face mask or face shield with other people.	3.92	All the time
Proper Disposal of used protective equipment.	3.67	All the time
Observe and advise stricter precautions for individuals at higher risk. Observe or advise individuals most vulnerable to be infected with COVID-19 or at risk of developing severe symptoms are advised to stay home as much as possible, and practice stricter precautions as iterated above.	3.92	All the time
Staying at home and going out only for urgent emergency purpose	3.25	Most of the time
Keeping the self-healthy by having a healthy lifestyle through: A well-balanced diet food,	3.42	All the time
Good rest/sleep	3.58	All the time
Exercise	3.17	Most of the time

Supplementary foods/vitamins	3.58	All the time
Submitting for rapid COVID-19 test	2	Sometimes
Other health protocols, please indicate.	-	
Over-all Mean	3.52 (sd = 0.55)	All the time

Legend:

All the time	3.26 – 4.00	Sometimes	1.76 – 2.50
Most of the time	2.51 – 3.25	Never	1.00 – 1.75

3.2 Challenges experienced during the health protocol preparation

First, the challenges encountered by the employees and students of MVGFCI are limited social activities and limited supply of PPE's. A limited supply of PPE was experienced because all people want to have these to protect themselves against the virus. Another factor is that there is also an issue with the capability and accessibility of buying these PPE's. The second challenge that they encountered is the difficulty to maintain physical distancing because they habitually socialize with other people. The third challenge that they have encountered is the feeling of anxiety. Because of fear of the COVID-19, our mental health is also affected. Anxiety was also experienced because of losing a job, especially on the employees that involve no work no pay scheme. Fourth is the difficulty of wearing PPE, most people are not used to wearing PPE's. Others have experienced allergies because of wearing these said personal protective equipment.

3.3 Strategies Done to Address the Challenges

The strategies done to address the challenges faced by the employees and students of MVGFCI first is the proper hygiene and disinfecting because of limited resources (PPE's). Another strategy is to avoid crowded places. The third strategy is about removing or eliminating anxiety by engaging themselves in some physical activities to become physically healthy which can also positively affect their mental health. In the situation of losing their job because of no work no pay, they strategize to create a part-time job for extra income to sustain their needs for the family. Another strategy is to get used to wearing PPE's even if it is difficult. Wearing PPE's is mainly our way of preventing the said virus.

3.4 Recommendations of the Employees and BS Nursing

The following are the recommendations of the employees and BS Nursing students to their peers for the preparations on returning to school.

Healthy Lifestyle. This includes exercising, sleeping with the right amount of time, taking vitamins, and eating healthy and nutritious foods.

Stay at home. Staying at home especially for those who do not have urgent matters to attend to.

Wearing of PPE's and Proper Hygiene. This includes masks, face shields, frequent handwashing using soap, alcohol, or disinfectant.

Practice Physical Distancing. Avoid going to crowded places or attending mass gatherings.

Self-improvement. It is also recommended that this time is the time to get to know more of oneself and discover new skills and talents. This pandemic crisis brought fears and negativity to people, however, there are also good things that it caused. One of those is a chance to improve oneself.

Table 3 shows the readiness of the employees and BS Nursing students in returning to school and work. Based on the result, there is a difference between the readiness of employees and students. The readiness of employees fell under "a bit ready" while the readiness of BS Nursing students fell under "Ready". The difference between the two sets of respondents is probably because the students are eager to learn after being under lockdown for a couple of months. Whereas, employees took the lockdown as one way of resting on their respective duties and responsibilities.

Table 3. Readiness of Employees and Students in Returning to Work and School

Participants	Mean (x)	Verbal Description
MVGFCI Employees	1.88	A bit ready
BS Nursing Students	3.08	Ready

Legend:

Very Ready	3.26 – 4.00	A bit ready	1.76 – 2.50
Ready	2.51 – 3.25	Not ready	1.00 – 1.75

4 Conclusions

Health care preparation is vital in returning to school and work especially during this time. The following has been concluded based

1. Both the employees and students are observing health protocols in preparation for their return to school or work;
2. For the preparation of returning to school, the health protocols observed by the employees and students of MVGFCI are to wear a face mask, face shield, and use

alcohol as a disinfectant to avoid and minimize the spread of the virus. Boosting the immune system as a way to fight any diseases by eating healthy foods, taking vitamins and minerals as supplements. Minimize social gathering and practice physical distancing to avoid the spread of the virus.

3. Both the employees addressed the challenges they experienced during their preparation on returning to work, these are limited social activities and PPE's, difficulty to maintain social distancing, feeling of anxiety both for the threat of virus and possible losing of job, and difficulty in wearing PPE.
4. Despite the challenges they have experienced, they made some strategies, these are proper hygiene and disinfecting more often, not going to a crowded place, doing exercise, adding a part-time job, getting used to wearing PPE and accepting the new normal environment.
5. In terms of the level of preparedness, employees are a little bit ready in returning to work, while students are ready in returning to school.
6. The employees and students wanted to recommend to their peers to have a healthy lifestyle, always wear PPE, practice physical distancing, stay at home and while at home, find time to get to know themselves.

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Learning Management System and Its Cognitive Influence on Grade 11 Student

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Abstract. Educational institutions around the globe became progressively interested in e-learning to meet the developing needs of students, provide open communication between learners and educators, and allow easier data gathering for evaluation and feedback. Learning Management Systems enable teachers to hold online courses by posting instructional materials, quizzes, fora, on-line submissions, and other course related topics. This study generally aimed to find out the effectiveness of the Learning Management System in the Academic Performance of Grade 11 STEM Students in a private school in Luzon. While both groups, Learning Management System Group (LSMG) and Non-Learning Management System Group (NLMSG) utilized researcher-prepared lesson plans and test questionnaires, and covered the same subject matter, the delivery of content for the LSMG group is through a Learning Management System. Results show no significant difference between the mean pretest scores of the LSMG and NLMSG, indicating that both groups started at equal footing. Consequently, there was a significant difference between the post-test of LSMG and NLMSG and higher learning gain score of LSMG compared to NLMSG. The study recommends the continuous implementation of the LMS. This study also recommends replication and use of other learning management systems to further validate the result and to compare with other learning interventions, as well to find out the relative effectiveness of the LMS.

Keywords: Learning Management System, Online Learning

1. Introduction

With the implementation of the K-12 program, the Philippine education system experienced a significant reform. The Department of Education began implementing the K-12 program in 2011, which was accompanied by the new curriculum for all schools across the country.

In light of the progressing change within the Philippine education, it is important that educators must explore distinct educational systems that could enhance learners' abilities and encourage them to know how to learn. After the K-12, the next transformation in Philippine education is in the utilization of I.T. Those complementarities between public and private education should spark how teachers and learners will view and will live education in the 21st century (Br. Armin Luistro, FSC, SparkEd 2016). To cope up with the global needs of K-12, teachers should employ innovative methods to make learning more interesting by selecting appropriate activities to stimulate the learners, promote cooperation in the given activities, provide real – world situation activities, and allow the student to collaborate with others to develop his or her skills. Technology integration has revolutionized educational trends as technological pedagogical knowledge is among the essential skills that is expected among 21st century teachers. Educational institutions around the globe became progressively interested in e-learning

to meet the developing needs of students, provide open communication between learners and educators, and allow easier data gathering for evaluation and feedback.

Klobas & McGill (2010), as cited by Holmes and Rodrigues (2018), described the learning management system as a data system that facilitates e-learning through teaching and learning support, but can also execute administrative duties and facilitates communications between teachers and learners. Learning Management Systems enable teachers to hold online courses by posting instructional materials, quizzes, fora, on-line submissions, and other course related topics. As opposed to the conventional method, the Learning Management System (LMS) is a learner-centered intervention that cultivates self-learning and allows the learner to study according to his or her aptitude and skills (Snytnikova, 2016; Feshchenko, 2015). According to Aljarrah (2011), as cited by Alshorman and Bawaneh (2018), it enables students to communicate and cooperate with their instructors and schoolmates in order to work together in a pleasant way. It enables academic organization in the teaching and learning procedures to convert the internet as a powerful medium.

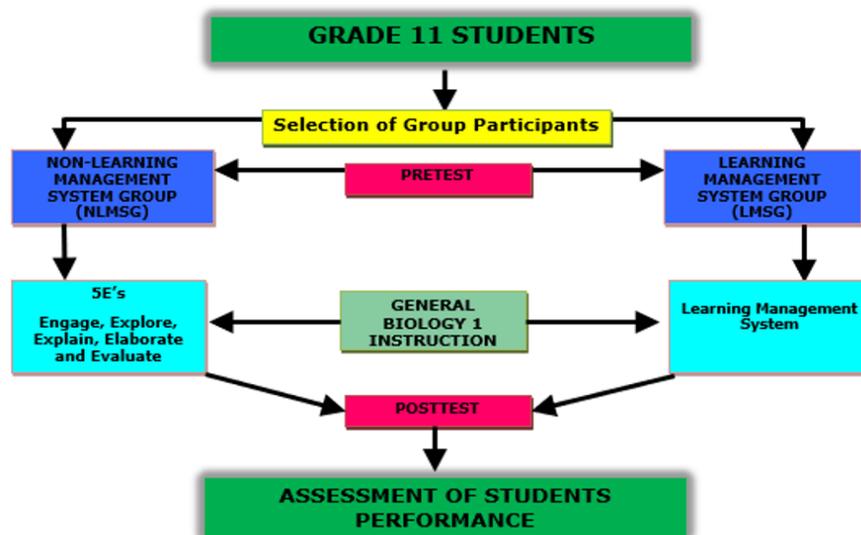


Figure 1. Research Paradigm

Figure 1 shows the paradigm of the study. In selecting the group of participants, the researcher used the lottery method in determining the Non-Learning Management System Group (NLMSG) and Learning Management Group (LMSG). While both groups, LSMG and NLMSG utilized researcher-prepared lesson plans and test questionnaires which were validated by experts, and covered the same subject matter, the delivery of content for the LMSG group is through Frontlearners, a Learning Management System, while the content for NLMSG was provided using the conventional 5Es. Pre-test was administered prior to instruction, while post-test was given after the delivery of the subject matter. Analysis and interpretation of the result determined the effectiveness of the Learning Management System in teaching Science.

2. Research Questions

This research sought to answer the following questions:

1. How comparable are the Non-Learning Management System Group and Learning Management System Group in terms of their third quarter grade in Biological Science?
2. What is the pre-test performance of the;
 - 2.1. Non-Learning Management System Group (NLMSG); and the
 - 2.2. Learning Management System Group (LMSG)
3. Is there a significant difference between the pre-test performances of the two groups?
4. What is the post-test performance of the;
 - 4.1. Non-Learning Management System Group (NLMSG); and the
 - 4.2. Learning Management System Group (LMSG)
5. Is there a significant difference between the post-test performances of the two groups?
6. Is there a significant difference between the pre-test and post-test performances of the two groups?
7. What are the learning gains of the students in the;
 - 7.1. Non-Learning Management System Group (NLMSG); and the
 - 7.2. Learning Management System Group (LMSG)
8. What is the difference between the learning gains of the two groups?

3. Methodology

The researcher employed a quantitative quasi experimental pretest-posttest method to assess the Non-Learning Management Group and Learning Management Group.

3.1 Population and Sample of the Study. The population of this study was the senior high school students of a private catholic school in Antipolo. The researcher utilized different sampling procedures in the study. First, Grade 11-A to 11E were purposely selected. Second, after determining which two sections are highly comparable based on their third quarter grades, the researcher used a lottery method to determine which section will utilize 5 E's and the Learning Management System.

3.2 Instruments of the Study. In order to find out the effectiveness of the Learning Management System in the academic performance of grade 11 students, the researcher designed and utilized a 50-item pre-test and post-test to gather necessary data for this study.

3.3 Preparation. The researcher sent a letter of request to the Principal, humbly asking permission that he will be allowed to conduct his study to the grade 11 senior high school students. In constructing the tests, the researcher has read a number of theses and studies related to the learning management system. After constructing the tests, it underwent validation through the help of five experts from different reputable educational institutions before it was administered to the respondents. Each item in the questionnaire was revised, retained, or rejected depending upon the recommendations and suggestions of the experts. The researcher also sent a letter of request to an expert statistician, humbly asking to help him in the statistical treatment of the study.

3.4 Data Processing and Statistical Treatment. The data gathered and collected by the researcher were analyzed and interpreted by applying various statistical treatment tools appropriately and accordingly. Several statistical procedures were used in the

experiment. The statistical tools that were used in the study were mean, standard deviation, independent and dependent t-test. All data was processed using PHStat.

4. Results and Discussion

The results of the data analyzed, interpreted, and summarized in this part of the research.

Table 1. Test of Significance of the 3rd Quarter Grade in Biological Science 1 of the NLMSG and LMSG

GROUP	N	MEAN	SD	T-TEST	T-VALUE	P-VALUE	DECISION	INTERPRETATION
NLMSG (Control Group)	40	92.78	2.55				ACCEPT THE NULL HYPOTHESIS	NOT SIGNIFICANT
				-0.32	1.99	0.74		
LMSG (Experimental Group)	40	92.98	2.87					

Table 1 shows the test of significance between the 3rd quarter grades of the NLMSG and LMSG. The NLMSG and LMSG both consisted of 40 respondents, and were equated academically based on their mean grades. The mean grade obtained by NLMSG was 92.78, which was described as Outstanding. On the other hand, the mean grade obtained by LMSG was 92.98 which was also described as Outstanding. The difference between the means of NLMSG and LMSG was only 0.20. The P-Value was 0.74 at 0.05 level of significance which means that there was no significant difference between the two groups. Therefore, the two groups were of equal footing.

The result of this study is supported by the study of Adriano (2018). He stated that equating student's ability based on their quarter grades was very important on the part of the researcher in considering the selection of the respondents who took part as the experimental and control group. Furthermore, the results of this study were in line with the findings of Balmediano (2018), she implied that the performance of the two groups are comparable based on their quarter grades. It is essential that the respondents have the same performance to ensure validity of the result of the experiment.

Table 2. Test of Significant Difference between the Pretest of NLMSG and LMSG

GROUP	N	MEAN	SD	T-TEST	P-VALUE	DECISION	INTERPRETATION
NLMSG (Control Group)	40	17.15	3.52			ACCEPT THE NULL HYPOTHESIS	NOT SIGNIFICANT
				-0.76	0.4467		

LMSG (Experimental Group)	40	16.48	4.33				
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Table 2 shows the test of significance between the pretest performances of the NLMSG and LMSG. The pretest mean score of the NLMSG was 17.15 with standard deviation of 3.52 while the pre-test mean score of LMSG was 16.48 with standard deviation of 4.33. The P-Value was 0.4467 at 0.05 level of significance which means that there was no significant difference between the two groups. Thus, the null hypothesis was accepted.

The results of this study were in line with the findings of Cakir (2017) in his study on the Effect of 5E Learning Model on Academic Achievement, Attitude and Science Process Skills that ensures the homogeneity of the groups before implementing the 5E instructional model.

Similarly, these findings affirmed the findings of Lai et al. (2015). They reported that there was no significant difference between the experimental and control groups when they conducted research on Developing a Mobile Learning Management System for Outdoors Nature Science Activity Based on the 5E Learning Cycle.

Table 3. Test of Significant Difference between the Posttest of NLMSG and LMSG

GROUP	N	MEAN	SD	T-TEST	P-VALUE	DECISION	INTERPRETATION
NLMSG (Control Group)	40	40.2	6.36			REJECT THE NULL HYPOTHESES	SIGNIFICANT
				5.42	0.0000		
LMSG (Experimental Group)	40	46.28	3.12				

Table 3 shows the test of significance between the Post-test performances of the NLMSG and LMSG. The post-test mean score of the NLMSG was 40.20 with standard deviation of 6.36 while the post-test mean score of LMSG was 46.28 with standard deviation of 3.12. The P-Value was 0.0000 at 0.05 level of significance which means that there was a significant difference between the two groups.

The results were consistent with the findings of Lai et al. (2015). They stated that there is a significant difference between experimental group and control group, indicating that the experimental group divergently outperformed the control group on achievement test after the learning experiment.

Table 4. Test of Significant Difference Between the Pretest and Posttest of the NLMSG

TEST	N	MEAN	SD	T-TEST	P-VALUE	DECISION	INTERPRETATION
PRETEST	40	17.15	3.52			REJECT THE NULL HYPOTHESIS	SIGNIFICANT
				-19.44	0.0000		
POSTTEST	40	40.20	6.36				

Table 4 shows the test of significance between the pretest and post- test of the NLMSG. The pretest mean of the NLMSG was 17.15 with standard deviation of 3.52 while the post-test mean of NLMSG was 40.20 with standard deviation of 6.36. The P-Value was 0.0000 at 0.05 level of significance which means that there was a significant difference between the two tests.

The findings of this study were supported by Turgut et al. (2011), they sum up that the 5E learning model is an effective teaching method.

Table 5. Test of Significant Difference Between the Pretest and Posttest of the LMSG

TEST	N	MEAN	SD	T-TEST	P-VALUE	DECISION	INTERPRETATION
PRETEST	40	16.48	4.33			REJECT THE NULL HYPOTHESIS	SIGNIFICANT
				-43.20	0.0000		
POSTTEST	40	46.28	3.12				

Table 5 shows the test of significance between the pretest and Post-test of the LMSG. The pretest mean of the LMSG was 16.48 with standard deviation of 4.33 while the Post-test mean of LMSG was 46.28 with standard deviation of 3.12. The P-Value was 0.0000 at 0.05 level of significance which means that there was a significant difference between the two tests.

The result of this study confirmed the findings of De Smet (2015) when calculating the differences between the tests, she observed that the slope is increased, she concluded that studying via LMS leads to better learning outcomes.

Table 6. Learning Gain Score Summary of the NLMSG

SCORE	FREQUENCY	PERCENTAGE	DESCRIPTION
25-50	17	42.5	Outstanding
20-24	9	22.5	Very Satisfactory
15-19	9	22.5	Satisfactory
11-14	4	10	Fairly Satisfactory

0-10	1	2.5	Poor
TOTAL	40	100.0	
MEAN	23.05		
DESCRIPTION	VERY SATISFACTORY		

Table 6 shows the learning gain score summary of NLMSG. The learning gain obtained by the NLMSG between the pre-test and post-test was 23.05 which was described as very satisfactory.

The results of this study were supported by the findings of Asuncion-Atupan (2016) which implied that the 5 E's instructional model is an effective tool in teaching science concepts. Similarly, this finding affirmed the findings of Toseenon (2017) there is improvement to the students who have been learning with the 5E learning cycle model.

Table 7. Learning Gain Score Summary of the LMSG

SCORE	FREQUENCY	PERCENTAGE	DESCRIPTION
25-50	34	85.0	Outstanding
20-24	6	15.0	Very Satisfactory
15-19	0	0	Satisfactory
11-14	0	0	Fairly Satisfactory
0-10	0	0	Poor
TOTAL	40	100.0	
MEAN	29.80		
DESCRIPTION	OUTSTANDING		

Table 7 shows the learning gain score summary of NLMSG. The learning gain obtained by the LMSG between the pre-test and post-test was 29.8 which was described as outstanding.

The result of this study confirmed the findings of Lai et al. (2015) which claimed that LMS can enhance the learning effect on the topic. Furthermore, the result of this study was supported by Ebarido and Valderama (2015). They stated that the assessment results of the students demonstrated through the Learning Management System in the learning process can increase knowledge acquisition skills of students.

Table 8. Test of Significant Difference Between the Learning Gains of the NLMSG and LMSG

GROUP	N	MEAN	SD	T-TEST	T-VALUE	P-VALUE	DECISION	INTERPRETATION
NLMSG (Control Group)	40	23.05	7.50	-4.92	1.99	0.0000	REJECT THE NULL HYPOTHESIS	SIGNIFICANT
LMSG (Experimental Group)	40	29.80	4.36					

Table 8 revealed that the LMSG got higher learning gain with a mean of 29.80 than the NLMSG with a mean of 23.05. The difference between the learning gains of the two groups was 6.75. The result revealed that the P-Value was 0.0000 at 0.05 level of significance which means that there was significant difference between the two tests. The result infers that the performance of LMSG is more remarkable than the NLMSG.

According to Galloway (2014), as cited by Adriano (2018), the ability to compare student's learning gain and to make a comparative judgement is such a potential value to the students, teachers, and educational researchers.

5. Conclusions

Based on the findings of this study, the prior knowledge of the NLMSG and LMSG on the covered learning competencies of the research were of the same level preceding the experimentation. Hence, the study was conducted with appropriateness of chosen subjects and tests resulting in credible findings. The study determined that both the Engage, Explore, Explain, Evaluate and Extend (5E's) and Learning Management System evidently increases the performance of the students as shown in the NLMSG and LMSG post-tests results. The study also determined that there was a significant difference between the post-test's performances of the two groups indicating that the LMSG divergently outperforms the NLMSG after learning experiment. Lastly, it was observed in the comparison of gain scores that the LMSG obtained a higher gain score than NLMSG. The researcher therefore concluded that the learning management system has better cognitive influence in learning than 5 E's.

6. Recommendations

Several recommendations were made based on the results obtained from the analysis of the data. First, the researcher highly recommends the continuous implementation of the LMS. Second, the study should be replicated to further validate the result of this study and to compare with other learning interventions to find out the relative effectiveness of the LMS. Third, the learning management system should be tested in other subjects as well as in another grade level. Fourth, conduct this study to larger samples since the subjects of this study have been limited to selected Grade 11 students. Fifth, the experimentation lasted only for one month. The researcher strongly suggests to the future researchers to make an intensive and lengthy study for a deeper analysis of the Learning Management System in teaching Science. Sixth, school administrators should intensify the

in-service developmental program and training on the use of the Learning Management System to the Science teachers. Seventh, the necessary technical support personnel from the Fontlearners should always be available inside the school to fix problems that may occur when using the LMS. The technical support should strengthen the internet connectivity for faster and reliable use of LMS. Lastly, the school should come up with a written policy on the use of the LMS. The policy should include guidelines, intellectual property, usability, human resource, ICT, materials, and copyright.

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Improving Skills In Multiplication Through Stick Multiplication: An Option For Home Education

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Abstract. Using stick multiplication in multiplying numbers up to 3-digit numbers by up to 2-digit numbers without or with regrouping among the 4th Grade learners undergoing modular distance learning is the main focus of the study. The study was limited to Grade IV learners in one of the largest elementary schools in the Division of Cavite Province. The Grade IV's pre-test level of mastery found in the automated item analysis is Moving Towards Mastery (MTM) level. After imploring the stick multiplication method in multiplying numbers up to 3-digit numbers by up to 2-digit numbers without or with regrouping, the post-test performance level significantly improved. It is gleaned that there is a significant difference before and after using stick multiplication. The relevance of using stick multiplication help improve the multiplication skills of the learners. It implies that learners at home show excellent and accurate computation than undergoing to the traditional long step process of multiplication. It is further recommended as one of the best options in teaching and learning multiplication at home.

Keywords: Home Education, Level of Mastery, Modular Distance Learning, and Stick Multiplication

1 Introduction

Mathematics is concerned with four fundamental operations – addition, subtraction, multiplication and division, and their relations. Acquiring those four concepts and their relations enable pupils to develop and strengthen their understanding for numbers and calculating. In the result of the school's Learning Outcome Assessment (LOA) in one of the largest schools in the Division of Cavite Province, it was found out that from SY 2018 to 2020 that one of the least mastered skill in Mathematics is multiplying numbers up to 3 – digit numbers by up to 2 – digit numbers with or without regrouping.

In today's new normal set up of education, the pupils stay at home with parents, grandparents, elder siblings or available neighbor often serve as home facilitators of learning. In some cases, pupils do not have any home facilitator to guide the pupils at home. Pupils just rely on the instructions given and you tube links sent by the teachers in the class chat group. This led to the conduct of the study to improve the least mastered competency of learners in Mathematics 4 using stick multiplication. Others call stick multiplication as Japanese multiplication and Chinese multiplication.

Moreover, based from the 1st Quarter Grade IV overall LOA MPS result in SY 2019 – 2020 is 79.91%. It is the lowest computed Math MPS from Grade 1 to Grade 6. It was found out that multiplying numbers up to 3-digit numbers by up to 2-digit numbers with or without regrouping contributes to the low MPS.

To give solution to the existing problem, a proposed strategy is to utilize stick multiplication during the 3rd and 4th week lesson rather than the use of the long step-by-step method in multiplication. Further, in the study of Garain (2018) and Kumar (2018) on Japanese (stick

multiplication) vs Vedic methods for multiplication, they found out that Japanese multiplication performed with the help of geometrical figure better output where as in Vedic method needs further practice. It shows that stick multiplication method is more effective for a person having less knowledge on multiplication. They further added that without knowledge of addition and multiplication table but with the help of counting ability, stick multiplication or Japanese multiplication method of multiplication can be performed whereas during the course of Vedic method, the knowledge of addition and multiplication is necessary.

1.1 Action Research Questions

The study answered the following questions:

1.1.1 What is the mean scores in the pre-test and post-test?

1.1.2 What is the mastery level of the mean scores of the pupils in the pre-test and post-test?

1.1.3 Is there a significant differences in the pre-test and post-test mean scores of the pupils?

1.2 Proposed Innovation, Intervention and Strategy

The stick multiplication or Japanese multiplication or Chinese multiplication help pupils solve difficulty in solving long multiplication steps. It is merely drawing a few lines and counting the points of intersections. The Math-Whizz Education.com (2020) illustrated the steps in utilizing the stick multiplication in solving multiplication. For an example: 12×32 . The numbers are represented using place value like 12 means one ten and two ones, 32 means three tens and two ones.

1st Step: Draw diagonal lines corresponding to tens, and after creating a gap, lines should be drawn in parallel to represent the ones. For 12 the drawing is:

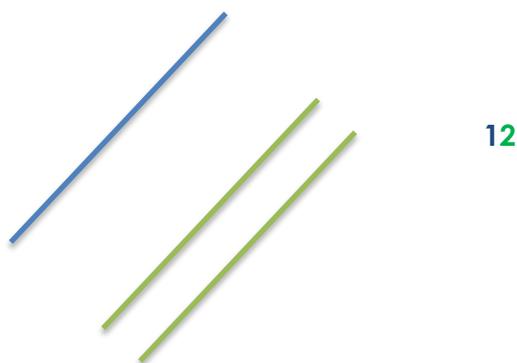


Figure 1. The first step in stick multiplication

2nd Step: For 32, same process made in the first step but lines should be drawn on the opposite direction. It should be left with a rough diamond shape, with the lines crossing at the corners. To calculate the product, count how many times all the lines intersect then write each number under.

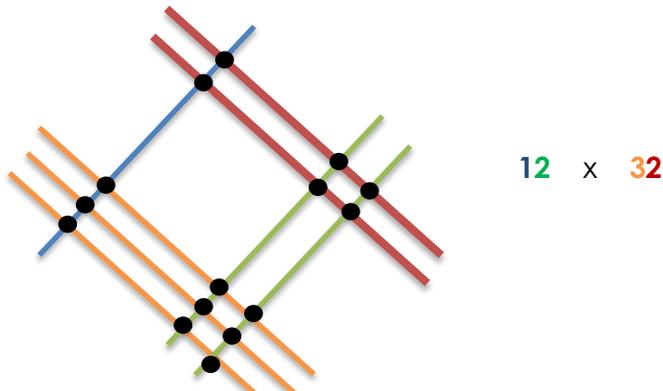


Figure 2. The second step in stick multiplication

3rd Step: Draw a loop round the group of intersections that is closest to the left side then start moving right. Draw a loop around the center intersections. Finally, draw a loop around the intersections that are closest to the right. So the 12 x 32 is 3 hundreds, 8 tens and 4 ones. The final answer is 384.

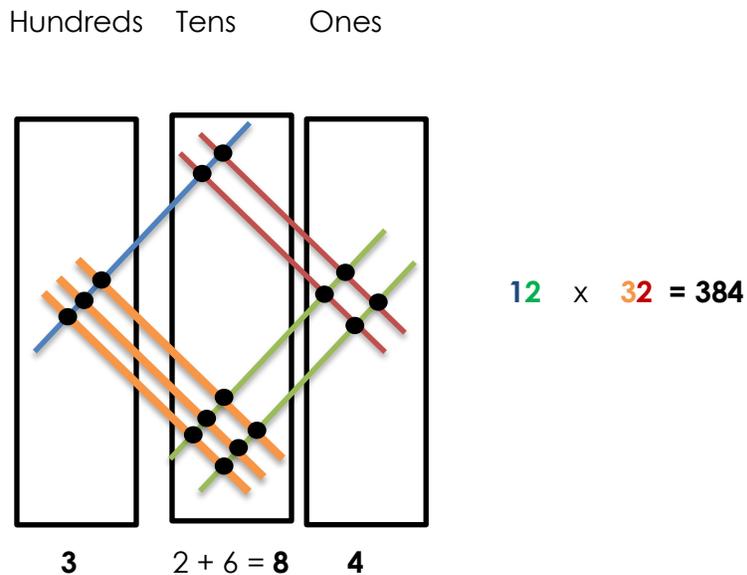


Figure 3. The third step in stick multiplication

2. Main Body of the Paper

The main body of this action research includes participants and or other sources of data and information, data gathering method, data analysis plan, and the results and discussion.

2.1 Participants and/or Other Sources of Data and Information

The participants of the study are the 46 pupils in one of the sections in Grade IV in one of the largest elementary school in the Division of Cavite Province. There are 25 male pupils and 21 female pupils undergoing to modular distance learning for SY 2020-2021.

2.2 Data Gathering Method

The researcher used the One-Group Pretest – Post-test Design. A single group of participants were subjected to the same treatment. The effectiveness of the treatment is tested by computing the difference between the results of the pre-test and post-test (Allen, 2017). The study was conducted during the 3rd and 4th week of Quarter 1 for a duration of 14 days.

A self-made 15 item test based on Mathematics Most Essential Learning Competency (MELC) for Grade IV with the codes: M4NS-Ic-43.7 and M4NS-Id-42.3 was utilized. The 15 item test was validated by the Master Teacher assigned in Grade IV. The learning competencies covered by the codes focused on multiplying numbers up to 3 to 4-digit numbers by 2- to 3-digit numbers without or with regrouping.

A hard copy of pre-test was given during the distribution of learning activities for week 3 (Tuesday) in school then retrieved the output via messenger and drop box placed at the main gate of the school. After the pre-test, you tube links as well as list of step-by-step method in using stick multiplication was send in messenger chat group. The pupils who have no internet access was given a printed copy during home visitation and drop off point system. After two weeks, the same process was made in the distribution and retrieval of the post-tests. Inquiries and clarifications during the run of the activity was addressed promptly.

2.3 Data Analysis Plan

The pre-test and post-test results were subjected to descriptive statistics like mean, and standard deviation. The automated item analysis used in LOA by the Division Office was utilized to determine the mastery level in each item before and after the duration of the study. The results of the analysis were then described in reference to the test items given.

To determine the significant difference between the pre-test and post-test results, a paired sample t-test was used.

2.4 Results and Discussion

Table 1 presents the pre-test, post-test mean scores, the level of mastery, and scores' distribution of pupils in one of the sections in Grade IV with 15-item test. The pre-test lowest

and highest scores were min=0 and max=14, respectively. While, the post-test lowest and highest scores were min=10 and max=15, respectively. It implies that in the pre-test, knowledge of multiplying numbers up to 3 to 4-digit numbers by 2- to 3-digit numbers without or with regrouping is scattered. It means that some pupils knew the lesson and can answer the test with few mistakes but numerous pupils had no idea on what to answer in the test. Meanwhile, the post-test imply that there was an improvement made after utilizing the stick multiplication in answering the post-test. All the pupils were in the bracket of Moving Towards Mastery (MTM) to Mastered (M).

Table 1. The pre-test, post-test mean scores, level of mastery, and standard deviation

Test	Minimum Score	Maximum Score	Mean	Level of Mastery	SD
Pre	0	14	6.696	MTM	4.330
Post	10	15	13.391	M	0.638

Legend:

13 – 15	M	Mastered
10 – 12	CAM	Closely Approximating Mastery
7 – 9	MTM	Moving Towards Mastery
4 – 6	LM	Low Mastery
0 – 3	VLM	Very Low Mastery

As to the mean scores, 6.696 was computed for the pre-test while 13.391 in the post-test. Based from the result, the level of mastery of the pre-test is Moving Towards Mastery and the post-test' level of mastery is Mastered. It implies that pupils improved their skills in multiplying numbers up to 3 to 4-digit numbers by 2- to 3-digit numbers without or with regrouping after using stick multiplication.

In terms of distribution, the table indicates that the pre-test standard deviation is 4.330 while the post-test is 0.638. It implies that in the pre-test, scores are scattered. It means that scores are found in the lowest level to the highest level. Moreover, it is evident that there is a prior knowledge of learners in the lesson. Meanwhile, the post-test show closeness of scores in the mastery level. It means that all the pupils' positivity improved their mastery level from Moving Towards Mastery to Mastered after using stick multiplication.

The overall result indicates that after utilizing stick multiplication in multiplying numbers up to 3 to 4-digit numbers by 2- to 3-digit numbers without or with regrouping, the outcome of the post-test improved better than the pre-test.

Table 2. The significant difference between the pre-test and post-test

Test	Mean	SD	Level of	Obtained	P - Value
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			Mastery	T-Value	
Pre	6.696	4.330	MTM	-10.49	1.1458E (-13) two-tailed
Post	13.391	0.638	M		

Legend:

13 – 15	M	Mastered
10 – 12	CAM	Closely Approximating Mastery
7 – 9	MTM	Moving Towards Mastery
4 – 6	LM	Low Mastery
0 – 3	VLM	Very Low Mastery

Table 2 shows that since the computed p – value is less than 0.05, then the null hypothesis that there is no significant difference between the pre – and post-test scores of the pupils is rejected. Hence, there is a significant difference between the pre- and post-test scores of the pupils.

It is surmised that the use of stick multiplication had a positive impact in the level of mastery of pupils. This suggests that stick multiplication, as a strategy in multiplying numbers up to 3 to 4-digit numbers by 2- to 3-digit numbers without or with regrouping is effective in increasing or enhancing pupils learning in terms of level of performance.

Conclusion

Based from the findings, the following conclusions were drawn:

1. Improvement of skills in multiplication is not merely on one method but could be attained through other and possible means.
2. Pupils' level of performance had improved and enhanced through the use of stick multiplication.
3. The teacher and home facilitators remain a significant factor in the improvement of pupils' performance in multiplication during home education.

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Effective Teaching Reading Strategies for Grade V Learners in Distant Learning Modality

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Abstract. This study determined the effective strategies in teaching reading in distant learning modality. The mixed method was used wherein minimum in qualitative method. The participants of this study were the sixty (60) grade V learners of Panigayan Elementary School who are enrolled in school year 2020-2021. Panigayan Elementary School adopted the distant learning modality specifically the utilization of self-learning modules in this time of health crisis. However, the grade V learners were able to assess their reading performance using the Philippine Informal Reading Inventory (Phil-IRI) as well as determined their reading level using the KaBaRo template of the school. The results showed that during the pre-reading assessment 53 learners were categorized in levels 1 – 3 in which 10 in level 1, 30 in level 2, and 13 in level 3. Moreover, there were only 7 learners belonged to level 4. The different strategies used in teaching reading were modified board games, flash card-based, and reading tutorial videos. After the 10 weeks of reading intervention, post-reading assessment was administered. The result showed that there was an improvement on the reading performance of the participants. There were 10 who belonged in level 2, 20 in level 3 and 30 in level 4. Furthermore, during the focus group discussion, most of the participants preferred to learn reading using modified board games and least preferred to use flash card-based.

Keywords: teaching reading, modified board games, flash cards, reading tutorial videos

1. Context and Rationale

Reading is a pivotal skill that needs to be developed to all learners. It is the ability to recognize and blend letter sounds to understand its meaning. Moreover, through the DepEd Memorandum No. 402 s.2014 and Administrative Order No. 324, the Department of Education implemented “Every Child A Reader Program” or ECARP which aims to develop an effective design to educate public school pupils with reading skills. There are a lot of strategies that teachers may use in developing the reading skill of their learners. Learners can positively learn and be motivated through effective instructions (Salataci, 2002) whereas ineffective and inappropriate teacher’s instructions may lead to the learner’s low reading performance (Haq et al., 2019).

Moreover, Dewey (1990) believed that children’s education depends on action, therefore they learn better while they are playing and being engaged in practical activities which give them the chance to demonstrate and articulate their thoughts. In addition, it said that using games can develop domains of words and relatedness since

they enable pupils to practice and rehearse the given words (Graves, August & Mancilla-Martinez, 2013). Also, Paperstergion (2009) stated that through games pupils learn more actively and with greater interest which enhanced a deeper understanding of the learnt content in comparison to a more traditional method of teaching.

Başoğlu and Akdemir (2010) conducted a study on the comparison of undergraduate students' English vocabulary learning using mobile phones and flash card-based instruction. Results indicated that using mobile phones as a vocabulary learning tool is more effective than one of the traditional vocabulary learning tools. Baleghizadeh and Ashoori (2011) presented a study to observe students' responses to teaching vocabulary using flash card-based instruction and word lists. But they have got a different result; they found no significant difference in the efficacy of either of the two techniques. Komachali and Khodareza (2012) also conducted a study to investigate the effect of using vocabulary flash card on Iranian pre-university students' vocabulary knowledge. The results showed the students in the experimental group outperformed the students in the control group in their vocabulary knowledge. Thus, flash card-based may consider to be one of the strategies in teaching reading to learners.

Mayer (2001) explains that viewing, while it may appear to be passive, can involve the high cognitive activity necessary for active learning: "well-designed multimedia instructional messages can promote active cognitive processing in students, even when learners seem to be behaviorally inactive". The content and context of the viewing are both crucial elements for engaging students as active learners. Marshall (2002) details three theories that explain how learning may occur via well-selected video "based on the ability of the entertaining media to engage the learner, activate emotional states, initiate interest in a topic, and allow for absorption and processing of information". Video is a form of multimedia that conveys information through two simultaneous sensory channels: aural and visual. It often uses multiple presentation modes, such as verbal and pictorial representations in the case of on-screen print and closed-captioning (Mayer, 2001). Hence, the use of tutorial video may also be included in the list of strategies in teaching reading to the learners.

However, during this health crisis, teachers have limited access to develop and assess the reading skill of their learners. Though there are a good number of strategies they may use in teaching reading, it is still difficult and challenging for them to utilize those strategies because of the current situation. Furthermore, Panigayan Elementary School adopted the distant learning modality specifically the use of self-learning module in lieu to the face-to-face instruction. Teachers encounter different problems to include the teaching reading to learners. Prior to the health crisis, during the conduct of pre-reading assessment using the Philippine Informal Reading Inventory (Phil-IRI) there was an alarming result. Only 25% of the total enrolment of Grades IV-VI belonged to the independent level while 75% were in frustration and dependent level. The Philippine Informal Reading Inventory (Phil-IRI) is an assessment tool of teachers in assessing the reading ability of their pupils that provided by the Department of Education. It measures the reading proficiency level of pupils on word recognition and reading comprehension in English and Filipino, specifically, by getting the percentage of word recognition and correct answers to comprehension questions based on the set of criteria for reading levels.

Reading skill of the learners must not be disregarded even in this time of health crisis. Hence, this study aims to determine the effective strategies that teachers may use in teaching reading in distant learning modality. Due to the health protocols and limited access to face-to-face instruction, participants of this study only catered the grade V learners of Panigayan Elementary School who are enrolled in school year 2020-2021.

2. Action Research Questions

This study attempted to determine the effectiveness of the strategies in teaching reading to Grade V – learners of Panigayan Elementary School in a distant learning modality for school year 2020-2021. Specifically, this study sought to answer the following questions:

- a. What are the reading level of the Grade V – learners during the pre- reading assessment?
- b. What are the reading level of the Grade V – learners during the post- reading assessment?
- c. How effective is the use of modified board games, flash cards-based and tutorial reading videos on the reading performance of Grade V – learners?
- d. Which reading strategy is preferred by the Grade V – learners?

3. Innovation, Intervention, and Strategy

For the school year 2019 – 2020, the result of the pre-reading assessment was alarming. Only 25% of the Grade IV - learners belonged to independent level while 75% were belonged to frustration and dependent level. Hence, this study aims to determine the reading level of the grade V – learners for this school year 2020-2021, and utilize the appropriate strategies in teaching reading.

Reading is one of the pre-requisite skills needs to develop in order to learn other skills. There are a number of strategies that a teacher may use to develop the reading skills of the learners. However, in distant learning modality other strategies may not be applicable. Therefore, to address the reading need of the learners, the researcher utilized modified board games, reading flash card-based and reading tutorial videos. The effectiveness of the strategies were assessed and determined. With the positive results and reading performance of the learners, the strategies used were effective and may utilize in teaching reading to the learners. Hence, teaching reading may be facilitated to learners in a fun way.

4. Action Research Methods

4.1 Participants and/or other Sources of Data and Information

The participants of this study were the Grade V - learners of Panigayan Elementary School. Using the total enumeration sampling, the participants were identified. Hence, all of the 60 Grade 5 learners who are officially enrolled for School Year 2020-2021 were part of this study.

Moreover, the participants were assessed using the Philippine Informal Reading Inventory or known as Phil-IRI. However, they were categorized according to their reading level using the Kasama sa Basa at Laro Reading Level Template. The categories were in four levels; Level 1 – Letter and Sound Recognition, Level 2 – CVC Words, Level 3 – Basic Sight Words, and Level 4 – Sentence Reading. Thus, the participants were grouped and categorized according to their KaBaRo reading level.

4.2 Data Gathering Methods

The researcher sought permission from the principal and concerned advisers of Panigayan Elementary School, Isabela Island District, Isabela City Schools Division. They were oriented on the purpose and aim of the conduct of the study. Before the conduct of the study, the parents or guardian of the target participants were given consent letter that explains the purpose of the study and asked for their signature if they will allow their children to be participants of the study. Participants were given too assent form if they are willing to be part of the study.

The participants were assessed using the Phil – IRI tool for pre- reading assessment. Through their result, they were categorized and grouped according to their reading level using the KaBaRo Reading Level. This study had a 10-weeks reading intervention to the participants. Based on the results, the participants were identified and categorized according to their reading level. All of the groups received the same interventions which were the modified board game, flash cards, and reading tutorial videos. The researcher met the participants once a week to provide the three interventions in teaching reading – the use of modified board games, flash card-based, and reading tutorial videos.

After the 10 weeks of reading intervention, the progress of the participants were assessed through administering the post-reading assessment. The Phil-IRI tool was utilized for the post-reading assessment. To know further the effectiveness of the reading intervention, a focus group discussion was facilitated by the researcher. The learners were grouped into 5 members in each FGD. The participants and researcher had 20 minutes in every FGD. The same question was posited in every FGD. After the data were collected, the researcher analyzed the data.

5. Discussion of Results and Reflections

During the pre-assessment reading, there were 10 learners who belonged to level 1; 30 in level 2; 13 in level 3; and 7 in level 4. Moreover, after the 10 weeks intervention, a post assessment was administered. Based on the results there were improvements shown on the reading performance of the grade V-learners, and these are the following; (a.) learners who cannot familiarize and read letter sounds were able to read CVC words and some of the basic sight words, (b.) learners who find difficult in reading the CVC words can already blend sounds and read basic sight words, and (c.) learners who can blend sounds but failed to read basic sight words can read simple sentences.

After the 10-week reading intervention, the researcher conducted post-assessment reading. During the post-assessment, there were 10 learners who belonged to level 2; 20 in level 3; and 30 in level 4. The results showed that there was an

improvement on the reading performance of the grade V learners who were the participants of the study. Furthermore, a focus group discussion was facilitated by the researcher to determine which of the reading strategies is preferred by the participants. During the focus group discussion, most of learners preferred to use modified board games because they were having fun in reading, there were some learners who chose video reading tutorial, and few of the learners preferred the use of flash cards in reading.

6. Action Plan

The results show that there were improvement on the reading performance of the learners specifically the grade V. Due to the positive results and feedback coming from the participants, it is might as well be served as effective strategies in teaching reading to the other grade levels. Hence, advisers will be oriented on the utilization of reading strategies for their learners who have reading difficulty.

Furthermore, the modified board games, flash cards, and tutorial reading videos will be provided to all advisers which will be utilized during the reading intervention of their respective learners. Other samples of modified board games and reading flash cards will be given to the advisers from grades I to VI. The researcher will be provided technical assistance to all advisers for more clarifications on the use of the effective strategies in teaching reading.

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Livelihood Sustenance for the Survivability of the Iskolar ng Bayan from the Emerald City: Basis for “LaTaBu” Project

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Abstract. In the Philippines the employment rate in January 2019 was estimated at 94.8%, compared to the 94.7% employment rate in Jan 2018. During the same year, the labor force participation rate (LFPR) was estimated at 60.2% of the 72.5 million population of 15 years old and over. The largest proportion of workers were employed in the services sector comprising 58.1% of the total number of employed in Jan. 2019. The agriculture sector employed 22.1%, while the industry sector absorbed 19.7%. In Jan. 2019, the underemployment rate, which is the percentage of the underemployed to the total employed, was estimated at 15.6%, lower than its January 2018 level at 18.0%. (PSA, 2019). In connection to the above data, this study focused in Muntinlupa City with the JRF 9-point development agenda specifically, (1) Development of area 4 – Livelihood and Employment and (2) Development area 8- Economic Development. The researchers used descriptive type of research, purposive sampling technique, and survey questionnaire among eight hundred (800) total number of the respondents from the 8 barangays in Muntinlupa City. Lakas, Talino at Buhay or #LaTaBu as an output, was proposed as livelihood project for the families of the Iskolar ng Bayan.

Keywords: Income Generating Sources, Employability Performance Standard, Entrepreneurial Skills, Self-Employed, 9-Point Development Program

1. Introduction

The Decent Work Agenda in the Philippines promotes equal opportunity in employment at its central element, in the same way, the Philippine contribution recognizes the role of women in nation building and promotes the quality of the women and men. Likewise, the Phil. Labor Code seeks to ensure equal employment opportunities regardless of sex, race or creed. It can be noted that female share in occupational employment followed a generally increasing to downward trend over the 22-year period from 1995 to 2019 (Philippine Statistic Authority. Labor Force Survey)

The abovementioned facts indicated an alarming news for everyone because each family expects a lot more even for the mothers and sisters consisting their families, if there are not enough employment opportunities provided for each qualified member of the family, there is a possibility for better income and higher demands for everyday needs may not be met.

In Muntinlupa City, a Women's Resource Center stated to operate which serves as a center for livelihood skills training, product development and for business development for micro enterprise (March, 2018)

The Unlad Kabuhayan Laban sa Kahirapan which is a DOLE-initiated program in cooperation with local government units aimed to assist self-employed workers with

informal sector, who wished to establish or make their small livelihood grow feasible and sustainable business enterprises, their, the 50 families from Cupang, Muntinlupa received a start-up livelihood packages worth 5,000 per family this was facilitated by the Muntinlupa Public Employment Service Office (PIA, NCR 2018)

The aforementioned existing programs in Muntinlupa served as samples that there are livelihood programs assisting the Muntinlupenos, hence, in this study, the researchers would like to emphasize on the individual respondents focusing on how they survive every day, and how they consider their employment, which will be useful in designing the localized indigenous livelihood project and which could be chosen as their new venture or an added income for the improvement of their financial status while living in the different Barangays in Muntinlupa, where the vast majority of the students of Pamantasan ng Lungsod ng Muntinlupa, the so called Iskolar ng Bayan are residing.

2. Research Methodology

This study is a descriptive-correlation type of research, it aims to describe and analyze the relationship between the income generating sources and employability performance standard of the different barangay in Muntinlupa: Basis for localized ingenuous livelihood project. According to Bhat (2018), Descriptive research is a research method that describes the characteristics of the population or phenomenon that is being studied. This methodology focuses more on the "what" of the research subject rather than the "why" of the research subject. In other words, it primarily focuses on describing the nature of a demographic segment, without focusing on "why" a certain phenomenon occurs. In other words, it "describes" the subject of the research, without covering "why" it happens. The respondents of this study were the 800 hundred selected residents from the eight barangays in Muntinlupa, where the greater number of the Iskolar ng bayan (students) from Pamantasan ng Lungsod ng Muntinlupa are dwelling. The respondents were chosen using purposive sampling technique, with one hundred respondents per Barangay. Purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is also known as judgmental, selective, or subjective sampling. In conducting the study, the researchers utilized a self-made close-ended survey-questionnaire as the major source in gathering primary data in answering the entire question indicated in the statement of the problem. The survey questionnaire was intentionally written in the Filipino Language to ensure that all the respondents from the different barangays will understand each statement, also, to avoid any hardship in understanding each statement. To assess the responses of the respondents, the researchers utilized a four-point rating scale with 4 as the highest and 1 as the lowest. After the approval of each barangay, the researchers personally requested the help of the NSTP Director who also signed a request letter, explaining the purpose of the study and its implication to the livelihood of every barangay in Muntinlupa City. With the approval of the NSTP Director to assist in the distribution of the survey questionnaires, the NSTP Students with the aid of their instructors reached out to the respondents to accomplish the approved questionnaire.

3. Results and Discussion

3.1 Demographic Profile

Table 1. Frequency Distribution of the respondents

Age		Gender		Employment Status		Monthly Income	
20 years old and below	109	Male	288	Employed	113	21,000php and above	49
20 – 24 years old	157	Female	426	Underemployed	274	16,000php – 20,000php	55
25 – 30 years old	336	LGBTQIA+	86	Self-employed	264	11,000php – 15,000php	148
31 years old and above	198			Unemployed	149	6,000php – 10,000php	397
						5,000php and below	151

Table 1 shows the frequency distribution of the respondent. Out of 800, there are 109 respondents that are 20 years old and below, 157 are 20 – 24 years old, 336 are 25 – 30 years old, and 198 are 31 years old and above. Out of 800 respondents, 288 are Male, 426 are Female, and 86 are LGBTQIA+. Out of 800 respondents, 113 are employed, 274 are underemployed, 264 are self-employed, and 149 are unemployed. 49 out of 800 respondents have an income ranging from 21,000php and above, 55 have an income of 16,000php – 20,000php, 148 have an income of 11,000php – 15,000php, 397 have an income of 6,000php – 10,000php, and 151 have an income of 5,000php and below.

3.2 Income Generating Source

Table 2. Summary of the Average Weighted Mean and Descriptive Interpretation of Income Generating Sources per barangay

Barangay	Average Weighted Mean	Descriptive Interpretation
Tunasan	3.04	Agree
Poblacion	3.58	Strongly Agree
Putatan	3.88	Strongly Agree
Bayanan	3.31	Strongly Agree
Alabang	3.49	Strongly Agree
Cupang	3.44	Strongly Agree
Buli	2.91	Agree
Sucat	3.76	Strongly Agree

Legend:		
Scale	Numerical Scale	Descriptive Interpretation
4	3.25-4.0	Lubos na Sumasang-ayon (Strongly Agree)
3	2.51-3.24	Sumasang-ayon (Agree)
2	1.76-2.50	Hindi Sumasang-ayon (Disagree)
1	1.0-1.75	Lubos na Hindi Sumasang-ayon (Strongly Disagree)

Table 2 shows the summary of the average weighted mean and descriptive interpretation of Income Generating Sources per barangay. Tunasan got 3.04 (Agree), Poblacion got 3.58 (Strongly Agree), Putatan got 3.88 (Strongly Agree), Bayanan got 3.31 (Strongly Agree), Alabang got 3.49 (Strongly Agree), Cupang got 3.44 (Strongly Agree), Buli got 2.91 (Agree), and Sucat got 3.76 (Strongly Agree).

3.3 Employability Performance Standard

Table 3. Summary of the Average Weighted Mean and Descriptive Interpretation of Employability Performance Standard per barangay

Barangay	Average Weighted Mean	Descriptive Interpretation
Tunasan	2.88	Agree
Poblacion	3.66	Strongly Agree
Putatan	3.95	Strongly Agree
Bayanan	3.38	Strongly Agree
Alabang	3.62	Strongly Agree
Cupang	3.68	Strongly Agree
Buli	2.89	Agree
Sucac	3.83	Strongly Agree

Legend:		
Scale	Numerical Scale	Descriptive Interpretation
4	3.25-4.0	Lubos na Sumasang-ayon (Strongly Agree)
3	2.51-3.24	Sumasang-ayon (Agree)
2	1.76-2.50	Hindi Sumasang-ayon (Disagree)
1	1.0-1.75	Lubos na Hindi Sumasang-ayon (Strongly Disagree)

Table 3 shows summary of the average weighted mean and descriptive interpretation of Employability Performance Standards per barangay. Tunasan got 2.88 (Agree), Poblacion got 3.66 (Strongly Agree), Putatan got 3.95 (Strongly Agree), Bayanan got 3.38 (Strongly Agree), Alabang got 3.62 (Strongly Agree), Cupang got 3.68 (Strongly Agree), Buli got 2.89 (Agree), and Sucac got 3.83 (Strongly Agree).

3.4 Significant Difference

Table 4. Significant Difference among the Income Generating Sources when grouped according to Demographic Profile

			INCOME GENERATING SOURCES			
			Earned Income	Profit Income	Interest Income	Rental Income
DEMOGRAPHIC PROFILE	Age	F	0.142	0.067	1.025	1.073
		p-value	0.967	0.992	0.393	0.369
		Decision	Failed to Reject H_0			
	Gender	F	1.442	0.422	0.173	0.103
		p-value	0.237	0.656	0.841	0.902
		Decision	Failed to Reject H_0			
	Employment Status	F	1.034	1.07	3.435	0.399
		p-value	0.377	0.361	0.017	0.754
		Decision	Failed to Reject H_0	Failed to Reject H_0	Reject H_0	Failed to Reject H_0
	Monthly Income	F	0.326	0.525	1.631	0.682
		p-value	0.861	0.718	0.164	0.604
		Decision	Failed to Reject H_0			

Decision Rule: If the computed value of p is < 0.05, then reject H_0

Table 4 show the significant difference among the Income Generating Sources of the respondents when grouped according to their demographic profile. To test the significance, the researchers used t-test and ONE-WAY ANOVA (Analysis of Variance), and the results are as follows:

Income Generating Sources has no significant difference when grouped according to age, gender and monthly income of the respondents. The null hypothesis was rejected for the reason that the computed value of p, ranging from 0.164 to 0.992, is > 0.05 . This implies that the age group of the respondents is not a predictor of their income generation.

On the contrary, based on the result, Interest Income has significant difference when grouped according to employment status of the respondents. The null hypothesis was rejected for the reason that the computed value of p is < 0.05 . This implies that the employment status group of the respondents impacts their income generation.

On the other hand, Earned Income, Profit Income, and Rental Income have no significant difference when grouped according to the employment status of the respondents. The null hypothesis was failed to be rejected for the reason that the computed value of p, ranging from 0.361 to 0.754, is > 0.05 . This implies that the employment status of the respondents has no impact to their income generation in terms of earned, profit, and rental income.

3.5 Significant Relationship

Table 5. Summary of the p-value and relationship between Income Generating Sources and Employability Performance Standard per barangay

	Income Generating Source	p-value	Employability Performance Standard			
			Working Efficiency	Working Quality	Working Spirit	Working Attitude
Tunasan	Earned Income	p-value	0.15	0.37	0.34	0.23
	Profit Income	p-value	0.06	0.59	0.73	0.09
	Interest Income	p-value	0.72	0.18	0.40	0.64
	Rental Income	p-value	0.24	0.79	0.79	0.38
Poblacion	Earned Income	p-value	0.91	0.42	0.65	0.84
	Profit Income	p-value	0.65	0.004 Significant	0.80	0.17
	Interest Income	p-value	0.21	0.64	0.32	0.57
	Rental Income	p-value	0.32	0.12	0.99	0.23
Putatan	Earned Income	p-value	0.88	0.83	0.25	0.14
	Profit Income	p-value	0.70	0.68	0.87	0.12
	Interest Income	p-value	0.57	0.89	0.24	0.09
	Rental Income	p-value	0.65	0.92	0.29	0.18
Bayanan	Earned Income	p-value	0.64	0.53	0.80	0.61
	Profit Income	p-value	0.81	0.35	0.38	0.07
	Interest Income	p-value	0.29	0.01 Significant	0.08	0.31
	Rental Income	p-value	0.14	0.99	0.18	0.93
Alabang	Earned Income	p-value	0.81	0.15	0.49	0.79
	Profit Income	p-value	0.18	0.02 Significant	0.02 Significant	0.05 Significant
	Interest Income	p-value	0.82	0.77	0.94	0.69
	Rental Income	p-value	0.95	0.26	0.40	0.57
Cupang	Earned Income	p-value	0.20	0.52	0.16	0.18
	Profit Income	p-value	0.96	0.10	0.82	0.66
	Interest Income	p-value	0.69	0.06	0.44	0.38
	Rental Income	p-value	0.60	0.83	0.82	0.41
Buli	Earned Income	p-value	0.75	0.57	0.19	0.17
	Profit Income	p-value	0.66	0.50	0.09	0.90
	Interest Income	p-value	0.49	0.61	0.75	0.19
	Rental Income	p-value	0.07	0.21	0.84	0.08
Sucat	Earned Income	p-value	0.34	0.42	0.25	0.93
	Profit Income	p-value	0.17	0.06	0.16	0.91
	Interest Income	p-value	0.39	0.63	0.40	0.66
	Rental Income	p-value	0.61	0.61	0.69	0.63

Decision Rule: If the computed value of p is ≤ 0.05 , then Reject H_0 . Thus, mark it significant.

Table 5 shows the summary of the p-value and relationship between Income Generating Sources and Employability Performance Standard per barangay. To test the significance, the researcher applied t-test and Pearson product correlation coefficient or simply Pearson r. The results are as follow:

In barangay **Tunasan**, p-value of earned income in relation to employability performance standards are as follow: 0.15, 0.37, 0.34, 0.23, respectively. The p-value of profit income in relation to employability performance standards are as follow: 0.06, 0.59, 0.73, 0.09, respectively. The p-value of interest income in relation to employability performance standards are as follow: 0.72, 0.18, 0.40, 0.64, respectively. The p-value of rental income in relation to employability performance standards are as follow: 0.24, 0.79, 0.79, 0.38, respectively.

In barangay **Poblacion**, p-value of earned income in relation to employability performance standards are as follow: 0.91, 0.42, 0.65, 0.84, respectively. The p-value of profit income in relation to employability performance standards are as follow: 0.65, 0.004 (Significant), 0.80, 0.17, respectively. The p-value of interest income in relation to employability performance standards are as follow: 0.21, 0.64, 0.32, 0.57, respectively. The p-value of rental income in relation to employability performance standards are as follow: 0.32, 0.12, 0.99, 0.23, respectively.

In barangay **Putatan**, p-value of earned income in relation to employability performance standards are as follow: 0.88, 0.83, 0.25, 0.14, respectively. The p-value of profit income in relation to employability performance standards are as follow: 0.70, 0.68, 0.87, 0.12, respectively. The p-value of interest income in relation to employability performance standards are as follow: 0.57, 0.89, 0.24, 0.09, respectively. The p-value of rental income in relation to employability performance standards are as follow: 0.65, 0.92, 0.29, 0.18, respectively.

In barangay **Bayanan**, p-value of earned income in relation to employability performance standards are as follow: 0.64, 0.53, 0.80, 0.61, respectively. The p-value of profit income in relation to employability performance standards are as follow: 0.8, 0.35, 0.38, 0.07, respectively. The p-value of interest income in relation to employability performance standards are as follow: 0.29, 0.01 (Significant), 0.08, 0.31, respectively. The p-value of rental income in relation to employability performance standards are as follow: 0.14, 0.99, 0.18, 0.93, respectively.

In barangay **Alabang**, p-value of earned income in relation to employability performance standards are as follow: 0.81, 0.15, 0.49, 0.79, respectively. The p-value of profit income in relation to employability performance standards are as follow: 0.18, 0.02 (Significant), 0.02 (Significant), 0.05 (Significant), respectively. The p-value of interest income in relation to employability performance standards are as follow: 0.82, 0.77, 0.94, 0.69, respectively. The p-value of rental income in relation to employability performance standards are as follow: 0.95, 0.26, 0.40, 0.57, respectively.

In barangay **Cupang**, p-value of earned income in relation to employability performance standards are as follow: 0.20, 0.52, 0.16, 0.18, respectively. The p-value of profit income in relation to employability performance standards are as follow: 0.96, 0.10, 0.82, 0.66, respectively. The p-value of interest income in relation to employability performance standards are as follow: 0.69, 0.06, 0.44, 0.38, respectively. The p-value of rental income in relation to employability performance standards are as follow: 0.60, 0.83, 0.82, 0.41, respectively.

In barangay **Buli**, p-value of earned income in relation to employability performance standards are as follow: 0.75, 0.57, 0.19, 0.17, respectively. The p-value of profit income in relation to employability performance standards are as follow: 0.66, 0.50, 0.09, 0.90, respectively. The p-value of interest income in relation to employability performance standards are as follow: 0.49, 0.61, 0.75, 0.19, respectively. The p-value of rental income in relation to employability performance standards are as follow: 0.07, 0.21, 0.84, 0.08, respectively.

In barangay **Sucat**, p-value of earned income in relation to employability performance standards are as follow: 0.34, 0.42, 0.25, 0.93, respectively. The p-value of profit income in relation to employability performance standards are as follow: 0.17, 0.06, 0.16, 0.91, respectively. The p-value of interest income in relation to employability performance standards are as follow: 0.39, 0.63, 0.40, 0.66, respectively. The p-value of rental income in relation to employability performance standards are as follow: 0.61, 0.61, 0.69, 0.63, respectively.

3.6 The research output



Figure 1. Output of the study

Open link for the full content: <https://drive.google.com/file/d/1oK-G08lhZQyktA4GG5B2oj7FrFbreK7D/view?usp=sharing>

4. Conclusion

There is a significant difference among income generating sources especially on Interest Income when grouped according to employment status of the respondents.

There is a significant relationship between income generating sources and employability performance standard of the respondents.

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