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PERFORMANCE OF THE K12 GRADUATES OF DIFFERENT STRANDS IN ENGINEERING EDUCATION: BASIS FOR BRIDGING THE GAP IN ENGINEERING MATHEMATICS

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ABSTRACT

The Commission on Higher Education released Memorandum Circular No. 105 or The Policy on the Admission of Senior High School Graduates to Higher Education Institutions. This states that "All Grade 12 graduates beginning Academic Year 2017-2018 are eligible to enter college regardless of the strand taken in the SHS." Engineering program will accept the; Science, Technology, Engineering, and Mathematics (STEM) and non-STEM strand graduates. The dilemma on the part of the students who have taken non-STEM graduates is that they will have difficulties in coping with the fast tracked discussions on engineering subjects. The study determines the effectiveness of K-12 implementation in the Engineering programs following the CHED MC No. 105. It specifically evaluates the performance of the first year civil and computer engineering students taking up engineering math. The study revealed that, for BSCE, 91% of enrollees is STEM graduate, 6% GAS graduate. ABM has minimal enrollees which is 3% and 6%. For HUMSS, 2% are enrolled but in the last block. For the BSCpE, 38% is STEM graduates and 24% from GAS while 29% is TVL graduates. The passing percentage of STEM graduates for the BSCE is 91%, 67% and 86% and 29% for the four blocks respectively. For BSCpE, is 15% and 0% passing for the two blocks respectively. Recommendations includes; design strands or tracks should be followed, the college should develop a bridging program for the non-STEM graduates, and implementation of the K12 program should be properly monitored.

Keywords: K-12, STEM, Engineering Program, Engineering Mathematics

INTRODUCTION

In pursuit to meet the criteria of the international education, on May 15, 2013 President Aquino signed into law the Enhanced Basic Education of 2013 competencies and skills and develop tracks based on the student's interests and competencies (RA 10533, 2013).

The K-12 program covers Kindergarten and 12 years of basic education. Every child now has access early childhood education through Universal Kindergarten. Children can starts schooling at the age of 5 and are introduce to gradually adjust to formal education. Six years for primary education, four years for junior high school, and additional two years for senior high school is implemented to provide sufficient time for mastery of concepts and skills. Different tracks or strands were integrated to help them master their skills and to develop vital learning and prepare graduates for tertiary education.

The strand includes the following; Science Technology, Engineering and Mathematics (STEM), General Academic Subjects (GAS), Accountancy, Business and Management (ABM), Humanities and Social Sciences (HUMSS) and Technical Vocational Track (TVL). STEM strand prepares the students who wants to pursue Engineering, Technology related courses and Mathematics. GA strand prepares students for Secondary and Elementary Education. ABM for Accountancy and Business Management, HUMSS for Philosophy linguistic and Literature track and TVEL for technical Vocational strands (DEPED, 2013).

After 8 years of the K-12 program implementation which started in school year 2012-2013, it already produces graduates but a lot of issues and concerns are still to be addressed. In the entire country, the lack of buildings, laboratories, and facilities are reported. Lack of books in the different strands and insufficient trainings for teachers are still need to be addressed in the implementation of the new program. Senator Antonio Trillanes, moves to stop the implementation of the K-12 program which he referred to as overly ambitious because of the perennial issues in the educational system of the Philippines (Montebon, 2014). He discusses the actual inspections of the program implementation and found problems like the availability of classrooms and other issues of the teachers. He also cited the backlogs in the education system are still present even if the department of education declared that there is none.

The current basic education system of the country ranked 113th on the Global Innovation Index, and higher education system rank 74th. The poor marks received by the Philippine education system on the Global Competitiveness Index 2017-2018 released by the World Economic Forum, where it ranked 66th for primary education quality and 74th for secondary education quality for Math and Science education prompted Senator Gatchalian for filing Senate Resolution 675 to look into the problems of the education system in the country (Fernandez, 2018).

Another setback for the Higher Education is the implementation of CHED Memorandum Circular (CMO) No. 105 on the policy on the admission of senior high school graduates to the higher education institutions effective academic calendar 2018-2019 (CHED, 2018). It states that "All Grade 12 graduates beginning Academic Year 2017-2018 are eligible to enter college regardless of the track or strand taken in the SHS". That would mean, no graduates of different strands in SHS shall be denied acceptance in a certain college program. Engineering program will have to accept STEM strand graduates as well as non-STEM strand graduates. The dilemma therefore is on the part of the students especially of the non-STEM graduates, difficulty on coping with the fast track discussions in engineering subjects.

The study determines the effectiveness of K-12 implementation in the engineering programs. It specifically evaluates the performance of the first year civil engineering students and first year computer engineering subjects taking up engineering math. The students are from the College of Engineering of the Catanduanes State University.

STATEMENT OF THE PROBLEM

The study aims to evaluate the performance of the of the K-12 graduates in the Engineering program of Catanduanes State University. Specifically, the study sought to answer the following questions

1. What is the percentage of enrollees of the Senior High graduates from the different strand in the College of Engineering of CSU in consonance with the implementation of the K-12 program, specifically with CMO 105, S. 2017?
2. What is the passing percentage of STEM graduates in engineering math?
3. Is there a significant difference between the performance of the STEM and NON-STEM graduate in engineering math?
4. What are the techniques and methods that can be used to bridge the gap for NON-STEM graduates to Engineering Program?

METHODOLOGY

The study utilizes the Descriptive Research method. The descriptive method according to Best (1970), describes and interprets "What is". It is concerned with relation and condition that exit, practices that prevails, beliefs, processes that are going on and trends that are developing. Furthermore, Kothari (2008), stated that" Descriptive research is a study which is concerned with describing the characteristics of a particular individual, or a group." Correlational studies investigate the possible relationship between two variables such as leadership style and school performance. Fraenkel, (2006); states that describing the degree to which two or more quantitative variables are related and it does so by using correlation coefficient. In this study, the researcher assessed the performance in engineering mathematics of the K-12 graduates with other different strands.

The population of interest in this study consists of first year students enrolled Math1- Differential Calculus in BS Civil Engineering and BS Computer Engineering of S.Y. 2017-2018. It is consist of 4 block for the BSCE and 2 block for the BSCpE. The respondents are the enrolees of the Engineering program that were considered as the first batch of K-12 program graduates. They are graduates of the different strands in senior high school.The data gathered in the study was presented in a tabular from and analyzed using

simple descriptive statistics and graphs. Other statistical tools also include the mean and z-test.

FINDINGS

The number of enrollees in the college of engineering for both the Civil Engineering program and the Computer Engineering program shows the following data. For civil engineering, enrollees in STEM strand are 91 for BSCE this comprises the following 32 for Blk. A, 24 for Blk. B, 21 for Blk. C and 14 for Blk. D. For the GAS strand the total number of enrollees is 25. For the ABM strand the total enrollees is 5. For HUMMSS there is only 2 enrollees which is in Blk. D. For the TVL strand the total enrollees is 18 while there is 2 enrollees for the Basic Education Curriculum. Also; for BS Computer Engineering, the total number of enrollees from the STEM strand is 17, this comprises the following 13 for Blk A and 4 for Blk B. For the GAS strand the total enrollees is 14. For the ABM the number of enrollees is 3 while there is 1 enrollee from HUMMSS strand which is in Blk B. For the TVL strand, the total is 16 and for the BEC there are two enrollees.

Figure1 shows the percentage of enrollees of the different strand in the four blocks of BS CE. It indicates that in Block A, the first section, 91% of the enrollees is from the STEM strand. Only 6% is from GAS strand and 3% is from the ABM strand while there are no enrollees from the TVL and the HUMMSS strand. For the second Block it is still dominated with STEM graduates with 67%. The GAS strand is 22%. The ABM strand is 3% only and 8% of the enrollees is from the TVL strand. For the third block 58% is from the STEM strand while 19% is from the GAS strand. 6% is from the ABM strand and 17% is from the TVL strand. For the last section of the BSCE program, 39% is from the STEM strand, 22% is from the GAS strand while only 3% for the ABM strand. 25% is for the TVL strand and 6% for the BEC. For BSCpE, it shows that in Block A, the first section, 38% of the enrollees is from the STEM strand. 24% of enrollees is from GAS strand and 6% is from the ABM strand. For the TVL strand 29% is the total enrollees and 3% for the BEC. While for the second section, 21% is from the STEM strand, both 32% from the GAS and TVL strand and 5% each from the three remaining strands.

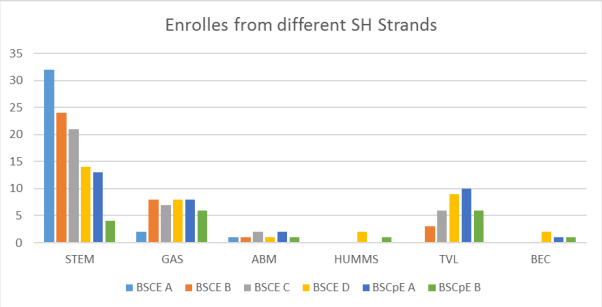

Figure 1. Percentage of enrollees for BSCE and BSCpE

The passing percentage in engineering math of the STEM are shown below in Figure 2. For block A, 29 students passed while 3 students failed. For Block B 16 students passed and 8 students failed. For block C 18 students passed and 3 students failed. For the last block only 4 students passed while 10 of them failed. No drop out and there are no students with incomplete grades. For the first three block, the passing percentage is 91%, 67% and 86% respectively while for the last block 29% is the passing percentage. For BSCpE program, block A, 2 students passed while 10 students failed, while for block B no students passed and 4 students failed. One student dropped but there are no students with incomplete grades.

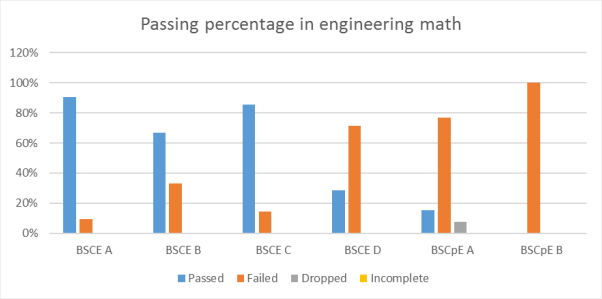

Figure 2. Passing percentage in engineering math for STEM

The significant difference between the performance of the STEM graduate and the NON-STEM graduate in engineering math provides the mean grade of the STEM graduates to 3.1, the z value is -1.539 while for the Non - STEM graduates the mean is 3.6 and the z value is 1.48. at 95% confidence interval.

CONCLUSION

The study was conducted for the purpose of evaluating the performance of the STEM and Non -STEM graduates in the Engineering Mathemat-

ics. The study revealed that the highest percentage of enrollees in the Civil Engineering program is from the STEM Strand which was followed by the GAS strand and the TVL strand. There are only a few enrollees from the ABM strand and the HUMMSS strand. For the Computer Engineering program the percentage of enrollees are almost the same for the STEM strand, TVL strand and the GAS strand. There are also few enrollees from the ABM strand and the HUMSS strand. The passing percentage for STEM graduates in engineering math is high for the first section and it decreases for the succeeding section of the BS CE program while for the BS CpE program the passing percentage is very low. The performance of STEM graduates and the Non-STEM graduates in engineering mathematics has no significant difference. There are techniques that can be used to enhance the performance of the students including offering bridging program for incoming first year engineering student before the start of the semester for both STEM graduates and NON-STEM graduates which focus on analytic geometry and applied trigonometry. Peer – to – peer review of the graduating engineering students who will take the board exam to the incoming junior students as tried and tested method as implemented during the S.Y. 2012-2014.

RECOMMENDATIONS

Based on the findings and conclusions of the study, the following recommendations are forwarded.

1. There should be a proper synchronization regarding the implementation of the K12 program as such as strands or tracks should be followed.
2. The college should develop a bridging program for the Non-STEM graduates and should require them to enroll prior to entry to the college.
3. Review and enhancement program should be given to STEM graduates.
4. Implementation of the K12 program in the Senior High level should be properly monitored by the agencies involved.

ACKNOWLEDGEMENT

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TEACHING CONDITIONS, CHALLENGES MET AND BENEFITS GAINED BY FILIPINO TEACHERS IN NAKHON SRITAMMARAT, THAILAND

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ABSTRACT

The main purpose of this study was to assess the teaching conditions, challenges met and benefits gained by Filipino Teachers in Nakhon Sritammarat, Thailand. Specifically, it sought to find out the challenges met by the respondents in teaching in Thailand and the benefits gained by the respondents in teaching. Also, it delved to find out the significant relationship between the respondents profile and: Challenges met and Benefits gained and finally, the significant difference between the respondents profile and their perceptions on the: Challenges met and Benefits gained. The study was conducted in 30 different schools in Nakhon Sritammarat Thailand both from public and private schools. The respondents were the 51 Selected ESL Filipino Teachers. The researcher employed the descriptive survey-method with the aid of the modified survey questionnaire as a tool of gathering data for the attainment of the purpose of the study. Findings revealed that all of the Filipino teachers working in Nakhon Sritammarat, Thailand are working as full time teacher and majority are in government institution earning a salary ranging from 16,000 - 25,000 baht (24,000 – 37,500 pesos) per month. Also, separation from the family is the biggest challenge faced by the Filipino teachers while teaching in Thailand since the Filipino family is so close to each other that they normally don't want to live far from each other. It is also concluded that despite of all the challenges experienced by Filipino teachers in their entire teaching career in Nakhon Sritammarat Thailand, they can still enjoy some benefits especially that the school provides enough teaching materials including computer and projector to them. Furthermore, the result revealed that there is a significant relationship between the respondents' challenges met and their profile in terms of age, type of learning institution, and monthly remuneration since the computed significant value of 0.024, 0.037, and 0.032, respectively, is lesser than 0.05 level of significance. However, there is no significant relationship between the respondents' challenges met and their profile in terms of educational attainment, teaching hours, length of service, and grade level taught since the computed significant value of 0.341, 0.424, 0.304, and 0.150, respectively, is greater than 0.05 level of significance. Also, the result depicted that there is a significant correlation between the benefits gained by the respondents and their profile as to type of learning institution and monthly remuneration since the computed significant values of 0.029 and 0.035 which are lesser than 0.05 level of significance. However, there is no significant correlation between the benefits gained by the respondents and their profile in terms of age, educational attainment, teaching hours, length of service, and grade level taught since the computed significant value of 0.182, 0.476, 0.511, 0.553, and 0.132, respectively is greater that the preset level of significance 0.05. Based on the results, the researchers suggested that the Philippine government should see to it that OFWs especially Filipinos teaching in Thailand be given full attention and support for them to work effectively and safely.

Keywords: Filipino Teachers in Thailand, Teaching Conditions, Challenges Met, Benefits Gained

INTRODUCTION

Over the years, poverty has been common reason for the exodus of Filipinos out of the country: “find work and sustain their needs as well as that of their families. Filipinos are well-known for their hardworking characters and dedication to work. Thus, Filipinos have much work opportunity abroad throughout many countries and one of those is Thailand.

Thailand needs a lot of ESL teachers to improve their country’s English proficiency. Because the world is becoming more of a “global village”, and English language is viewed as the number one language of communication. English is perceived as the language of success, linked to social mobility, status and economic security. The increasing use of English for communication fuels the demands for English teachers (Crystal, 2003).

However, the increase in the number of learners does not match the global demands for native English speaking teachers (NEST). In pure economic terms, the demand for native English speaking teachers is greater than the supply of native English speaking teachers (Bayyurt, 2006).

Thus, non-native English speaking teachers (NNEST) are needed. One country which is considered as a close ‘representative’ of the English language is the Philippines. This country has high literacy rates of 87% and good English speaking ability (Jinkinson, 2003). The scarcity of native English speaking teachers opens the door for the Filipino teachers to work in Thailand as ESL teachers. However, as the opportunity comes in, challenges, problems, worries and anxieties also rise up along the way.

With my personal experienced as a former ESL teacher in Thailand, this prompted the researcher to conduct a study on “Teaching Conditions of Filipino Teachers in Nakhon Sritammarat, Thailand” to determine the challenges, issues and problems that the Filipino teachers encountered and the benefits they gained in Thailand?

THEORETICAL BACKGROUND

According to Bolton and Bautista (2004), the Philippines was said to be the third largest English speaking society in the world. Regardless of the accuracy of such claims, there is no doubt that possessing good English language skills influences the personal and public life in Philippine society. It is the co-official language of government law and education as well as be the language of instruction in school. More importantly, the English language dominates Philippine culture, music, media, films, and television.

Bolton's and Bautista's (2004) major points are easily summarized: The role of English in the Philippines is affected by colonialism,

Economically, socially, and ethnically, there is a wide gap between the upper classes and lower classes of Philippine society; the direct outcome of economic challenges resulted in more than eight million Filipinos, and particularly the women, to seek work overseas. The reasons why many Filipinos work abroad are mainly due to economic reasons. Both Bolton and Bautista (2004) and Ubalde (2007) see the economic factor as the driving force for Filipino teachers to seek work overseas.

Ubalde (2007) added that Filipino teachers are highly esteemed abroad. They are paid up to ten times their salaries in the Philippines, and they are often important providers for their families. At the same time, all choices have consequences. There are disadvantages and advantages experienced by Filipinos when working as EFL teachers abroad. These challenges are noted as being the lack of knowledge regarding the local language, the new classroom setting and the culture including discrimination. The overall effect on the respondents is a tendency to feel inadequate as a teacher (Cook, 2007).

The Department of Education (DepEd) and the Ministry of Education (MOE) of Thailand met at the Philippine International Convention Center (PICC) recently to discuss the employment of Filipino teachers for the “English for All” project of the Kingdom of Thailand (Malipot, 2019).

Education Secretary Leonor Briones shared that the inter-agency meeting on the proposed Memorandum of Understanding (MOU) on the government-to-government hiring of Filipino teachers was initiated by Dr. Teerakiat Jareonsettasin, Thailand Minister of Education — during a side meeting last October 2018 at the 10th ASEAN Education Ministers Meeting in Nay Pyi Taw, Myanmar.

Briones explained that the MOU aims to “improve and promote” the international professional exchanges between the two countries to uphold teachers’ protection and welfare, as well as to “facilitate the recruitment, entry, and exit” of Filipino teachers to and from the Kingdom of Thailand in accordance with the provisions of Thailand and the prevailing laws and regulations of the Philippines, pursuant and in accordance with the rules and regulations of the different

Philippine government agencies such as the Philippine Overseas Employment Agency (POEA), Overseas Workers Welfare Agency (OWWA), Department of Labor and Employment (DOLE), Department of Foreign Affairs (DFA), Professional Regulation Commission (PRC), and Commission on Higher Education (CHED), among others.

Meanwhile, the Secretary to the Minister of Education of Thailand M.L. Pariyada Diskul underscored that they have big projects with teachers from the Philippines who are very highly regarded. "Your teachers are very diligent and blend in well with our culture," she said. "We want to recruit Filipino teachers to be placed in the Eastern Economic Corridor (EEC) government schools, which are the three provinces in the eastern side of Bangkok to upgrade the English competencies of the children in that area," Diskul explained. "I hope this will be the beginning of many other projects to come," she added. Briones, on the other hand, expressed her gratitude for the "milestones and initiatives" set by Thailand to "strengthen ties by helping Filipino teachers who are working and are planning to work in their country."

In 2015, the Philippine Embassy reported that there were 15,662 Filipinos in Thailand. This was accounted as follows: 1,025 are permanent migrants (they are married to Thais); temporary migrants, 13,266 are temporary migrants or those issued with work permits by the Thai Ministry of Labor, and the irregular or undocumented accounted to 1,371. However, the numbers could be higher because most Filipinos coming here to work entered as tourists. They have either friends or family members who encouraged them to work in the Kingdom.

As an ASEAN member, Filipinos can stay up to 28 days in Thailand as tourists. This opportunity favors the Filipinos who are looking for work as teachers or ajarn. Those who already found jobs usually get their visas at Royal Thai Embassy in Laos. They are assisted by their employers in securing a Non-B visa for workers while Non-O for the workers' dependents (Novid, 2018).

Novid (2018) added that hard-work, excellent work ethics, determination and willingness to adapt to whatever kind of environment give the Filipinos advantage over other foreign workers. These characteristics of the Filipino teachers impressed many school directors from the banok-banok (village schools) to the top universities in Thailand. Thus, it is not surprising that in Ajarn.com (a website for teaching jobs), many schools are looking specifically for Filipino teachers.

Novid also added that to most Filipinos, being an OFW is not a long term-job, but having the opportunity to work here even for a year is a big help to their families back home. A teaching contract is one year and renewable every year. Filipinos also know that citizenship is impossible for them no matter how long they have been in the Kingdom. Some Filipinos who are married to Thais are given permanent residency status.

Despite some misgivings as teachers, experiencing discrimination and visa problems, Filipino migrants still choose to stay in Thailand because of its relax working condition. Teaching hours range from 10-23 hours per week. Most teachers have tutorials after their regular classes. Aside from the convenience, safety is one of the reasons why many Filipinos are willing to be assigned even in the farthest municipalities in the Kingdom.

The reasons why many Filipinos work abroad are mainly due to economic reasons and to support to their families. Both Bolton and Bautista (2004) and Ubalde (2007) see the economic factor as the driving force for Filipino teachers to seek work overseas.

Maslow (1943, 1954) stated that people are motivated to achieve certain needs and that some needs take precedence over others. Our most basic need is for physical survival, and this will be the first thing that motivates our behavior. Once that level is fulfilled the next level up is what motivates us, and so on.

1. Physiological needs - these are biological requirements for human survival, e.g. air, food, drink, shelter, clothing, warmth, sex, sleep.

If these needs are not satisfied the human body cannot function optimally. Maslow considered physiological needs the most important as all the other needs become secondary until these needs are met.

2. Safety needs - protection from elements, security, order, law, stability, freedom from fear.

3. Love and belongingness needs - after physiological and safety needs have been fulfilled, the third level of human needs is social and involves feelings of belongingness. The need for interpersonal relationships motivates behavior

Examples include friendship, intimacy, trust, and acceptance, receiving and giving affection and love. Affiliating, being part of a group (family, friends, work).

4. Esteem needs - which Maslow classified into two categories: (i) esteem for oneself

(dignity, achievement, mastery, independence) and (ii) the desire for reputation or respect from others (e.g., status, prestige).

Maslow indicated that the need for respect or reputation is most important for children and adolescents and precedes real self-esteem or dignity.

5. Self-actualization needs - realizing personal potential, self-fulfillment, seeking personal growth and peak experiences. A desire "to become everything one is capable of becoming"(Maslow, 1987, p. 64).

Maslow continued to refine his theory based on the concept of a hierarchy of needs over several decades (Maslow, 1943, 1962, 1987).

Regarding the structure of his hierarchy, Maslow (1987) proposed that the order in the hierarchy "is not nearly as rigid" (p. 68) as he may have implied in his earlier description. Maslow noted that the order of needs might be flexible based on external circumstances or individual differences. For example, he notes that for some individuals, the need for self-esteem is more important than the need for love. For others, the need for creative fulfillment may supersede even the most basic needs. Maslow (1987) also pointed out that most behavior is multi-motivated and noted that "any behavior tends to be determined by several or all of the basic needs simultaneously rather than by only one of them" (p. 71).

Vygotsky's theories stress the fundamental role of social interaction in the development of cognition (Vygotsky, 1978), as he believed strongly that community plays a central role in the process of "making meaning." He stressed that Individual development cannot be understood without reference to the social and cultural context within which it is embedded. Higher mental processes in the individual have their origin in social processes. He placed more emphasis on social contributions to the process of development and he also believed that language develops from social interactions, for communication purposes. Moreover, he viewed language as man's greatest tool, a means for communicating with the outside world.

On the other hand, the theory of cultural adaptation refers to the process and time it takes a person to assimilate to a new culture. It is not always an easy transition. How would you feel if you could no longer read signs because they were in a different language? What would you do if the clothes you owned were considered unacceptable to wear in public because people of your gender dress differently there? What if you were always expected to eat with chopsticks because Western utensils were unavailable? Given the right amount of time, would you be able to adjust to these differences?

Living in a new culture can be jarring and very difficult to process, especially if it is drastically different from your own. A person that is being introduced into a new culture can feel a variety of different sensations. For example, one may feel frustrated because she or he cannot communicate or become angry because certain cultural norms do not make sense. In some cultures, spitting in public is considered bad manners. How would you feel if you ended up in a culture where spitting in public was okay and done by everyone? It may make you feel uncomfortable when the people of that culture think nothing of it. Cultural adaptation theory offers an explanation for these emotions.

The government of Philippines through the MIGRANT WORKERS AND OVERSEAS FILIPINOS ACT OF 1995 ensures and guarantees that migrant Filipino Workers are only deployed to overseas countries where migrant workers' rights are protected. The Filipino government seeks the following bases for guarantee: Existing social and labour laws protect migrant workers, especially teachers. The country is a signatory to international conventions, declaration or resolutions related to workers' protection rights. The country has concluded bilateral agreements with governments on the protection of workers' rights. As stated in the Migrant Workers and Overseas Filipinos Act, (1995), the Philippine Overseas Employment Administration (POEA) is the sole government agency responsible for managing the process of international recruitment of migrant teachers in the country. In collaboration with overseas employers or employment agencies, POEA systematically delivers all the necessary services for the recruitment and deployment of Filipino workers overseas.

Under section 3 of Batas Pambansa Blg 232 also known as the Education Act of 1982, In section 3, It states that: "The state shall promote the right of the nation's cultural communities in the exercise of their right to develop themselves within the context of their cultures, customs, traditions, interest and belief, and recognizes education as an instrument for their maximum participation in national development and in ensuring their involvement in achieving national unity". Also in section 11 of the same Act, it states there that teachers shall be accorded the opportunity to choose alternative career lines either in school

administration, in classroom teaching, or others, for purposes of career advancement.

Also, Republic Act 10022 Sections 3. Section 4 of Republic Act No. 8042, as amended, is hereby amended to read as follows: "SEC. 4. Deployment of Migrant Workers. – The State shall allow the deployment of overseas Filipino workers only in countries where the rights of Filipino migrant workers are protected. The government recognizes any of the following as a guarantee on the part of the receiving country for the protection of the rights of overseas Filipino workers:" (a) It has existing labor and social laws protecting the rights of workers, including migrant workers;" (b) It is a signatory to and/or a ratifier of multilateral conventions, declarations or resolutions relating to the protection of workers, including migrant workers; and "(c) It has concluded a bilateral agreement or arrangement with the government on the protection of the rights of overseas Filipino Workers: Provided, That the receiving country is taking positive, concrete measures to protect the rights of migrant workers in furtherance of any of the guarantees under subparagraphs (a), (b) and (c) hereof. "In the absence of a clear showing that any of the aforementioned guarantees exists in the country of destination of the migrant workers, no permit for deployment shall be issued by the Philippine Overseas Employment Administration (POEA). The foregoing readings and researches laid the foundation of this present study on the Teaching Conditions, Challenges Met and Benefits Gained by Filipino Teachers in Nakhon Sritammarat, Thailand.

OBJECTIVE:

The specific objectives of the study are:

1. Determine the profile of respondents in terms of: Age, Gender, Educational Qualification, Length of Service as Teacher in Thailand, type of institution where a teacher work, Employment status as a teacher, Year / level of students Handled, Hours a week normally taught, and Monthly remuneration?
2. Identify the challenges met by the respondents in teaching in Thailand?
3. Identify the benefits gained by the respondents in teaching in Thailand?
4. Determine the significant relationship between the respondents profile and:
   4.1. Challenges met; and
   4.2. Benefits gained?
5. Is there a significant difference between the respondents profile and their perceptions on the:
   5.1. Challenges met; and
   5.2. Benefits gained
6. Proposed Enhancement Program For The Welfare Of Filipino Teachers In Nakhonsritammarat, Thailand

DESIGN

The researcher employed the descriptive survey-method with the aid of the modified survey questionnaire as a tool of gathering data for the attainment of the purpose of the study.

ENVIRONMENT AND RESPONDENTS

The study was conducted in Nakhon Sritammarat, Thailand. It is a city in southern Thailand, capital of the Nakhon Si Thammarat Province and the Nakhon Si Thammarat District. It is about 610 km (380 mi) south of Bangkok, on the east coast of the Malay Peninsula. There were 51 Selected ESL Filipino Teachers from more than 30 different schools both public and private schools. The following schools are as follows: Darun Suksa School, Sarasas Withet School, Islamic Santitham Foundation School, Boriboon Wittaya School, yothin Bumrung School, Nakhon International City School, Anuban Changwat School, Tripoom Wittaya School, Wat Prathoom School, Thewarak School, Nakhon Sritammarat Vocationa College, Chainyai School, Khanom Wittaya School, Thungyai Wittaya School, Sichon Commercial College, Suankulap Wittaya, Thungsong Technical College, Sichon Technical College, Ban Chauat School, Khonhat Beach School, Khonhad Sahaprachason School, Maheyong School, Muang Nakhon Sritammarat School, Nakhon Sritammarat Industrial College, Rajabhat University, Thungsong Prachasan School, Prasatrat amrung School, Salamechai School, Ban Chauat Primary School, Bang Khan Wittaya School, Saothung Tong School, Kanlayanee Sritammarat and Benjamarachuthit School.

INSTRUMENTS / TOOL

Through consultation and extensive referral to different aspects in relation to the study, the researcher used four (4) instruments namely: questionnaire for the profile of the respondents, teach-

ing conditions of the teachers, challenges met and benefits gained by the respondents.

DATA GATHERING PROCEDURE

The researcher asked permission from the school authorities in Thailand through a letter to conduct this study. Upon approval of school authorities, the researcher personally distributed the questionnaire. After a week of constant follow-up to the respondents through messenger, line, email, mobile phone and even personal reminders, the questionnaires were collected. The researcher visited the schools and flats of the respondents to personally collect the designed instrument for further study. The data collected were closely analyzed, tabulated accurately and calculated the percentages of each question. Graphs were made to show the result for better understanding and comparison.

STATISTICAL TREATMENT

To assess the teaching conditions, challenges met and benefits gained by Filipino teachers in Nakhon Sritammarat, Thailand, the percentage, weighted mean, Pearson correlation, and ANOVA (Single Factor) were used.

1. To determine the profile of the students in terms of age, sex, internet accessibility and time and duration of internet use, the researcher used the percentage formula:

   P = (F/N) * 100
   Where:
   P = Percentage;
   F = Frequency; and,
   N = Total sample size.

2. To determine the students' profile on the effects of internet in terms of Academic Performance, Physical Health, Emotional Health, Positive and Negative effect, the average weighted mean formula will be used.

   Formula:
   WM=(f1X1+f2X2+···fkXk)/(f1+f2+···fk)
   Where:
   WM = Weighted mean
   f1, f2 = Frequency multiplied by the assigned value
   x1, x2 = Items given

3. To determine the profile of the students in terms of age, sex, internet accessibility and time and duration of internet use, the arithmetic mean formula will be used.

   Formula: $x = \frac{\Sigma x}{N}$

   Where:
   x = Mean
   Σx = Sum of all data values
   N = Number of respondents

THE FINDINGS

Table 1. Profile of the Teacher-Respondents
N = 51

1.1 Age	**Frequency**	**Percentage (%)**	**Rank**
Below 25 years old	17	33.33	1
26-29 years old	9	17.65	3
30-35 years old	10	19.61	2
36-39 years old	3	5.88	6
40-45 years old	7	13.73	4
46-49 years old	4	7.84	5
50-55 years old	1	1.96	7
Total	**51**	**100%**	
1.2 Sex			
Male	16	31.37	2
Female	35	68.63	1
Total	**51**	**100%**	
1.3. Educational Attainment			
College Level	1	1.96	4.5
Bachelor's Degree Holder	42	82.35	1
With MA units	5	9.80	2
MA (CAR)	1	1.96	4.5
MA Graduate	2	3.92	3
With PhD./EdD Units	0	**0**	
CAR in PhD/EdD	0	0	
Doctorate	0	0	
Total	51	**100%**	
1.4 Length of service as EFL teacher			
Less than a year	7	13.73%	3
1-3 years	22	43.14%	1
4-6 years	10	19.61%	2
7-10 years	6	11.76%	4.5
More than 10 years	6	11.76	4.5
Total	**51**	**100%**	
1.5 Type of learning institution			
Government	42	82.35%	1
Private	9	17.65%	2
Total	**51**	**100%**	
1.6 Employment status			
Full time	**51**	**100%**	**1**
Part time	**0**	**0**	
Substitute	**0**	**0**	
Total	**51**	**100%**	
1.7 Level of students taught			
Kindergarten	6	11.77%	4
Elementary	19	37.25%	1
Secondary	17	33.33%	2
Tertiary	9	17.65%	3
Total	**51**	**100%**	

1.8. Teaching hours per week			
14-16	11	21.57%	2
17-19	8	15.69%	3
20-21	22	43.14%	1
22-24	7	13.72%	4
25 or more	3	5.88%	5
Total	**51**	**100%**	
1.9. Monthly Remuneration			
12,000-15,000 baht (18,000 - 22,500 pesos)	5	9.80%	3
16,000-20,000 baht (24,000 - 30,000 pesos)	20	39.23%	1
21,000-25,000 baht (30,500 - 37,500 pesos)	17	33.33%	2
26,000-30,000 baht (39,000 - 45,000 pesos)	4	7.84%	4.5
31,000-35,000 baht (45,500 - 52,500 pesos)	4	7.84%	4.5
36,000-40,000 baht (54,000 - 60,000 pesos)	1	1.96%	6
Total	**51**	**100%**	

As shown in the table 1, the result indicates that the highest age frequency of the teacher respondents in Nakhon Sritammarat, Thailand were more likely to have below 25 years old with the percentage of (33.33%), and followed by 30-35 years old (19.61%). It also indicates that most teachers were female (68.63%) and most of them were college graduates. Moreover, 22 out of 51 (43.14 %) EFL teachers were neophytes and are still young in overcoming challenges ahead and can be expected that there are a lot of seminars and trainings needed in order for them to be expert in their teaching career.

In the same table, as to type of learning institution, more than 80% were working in government schools as full time teachers and most of them were elementary and secondary teachers respectively. They were teaching 4-5 hours a day or 20-21 teaching loads per week with a monthly remuneration of 16,000-25,000 baht (24,000 – 37,500 pesos) accordingly.

As perceived from table 2, shows that the separation from family is the biggest challenge faced by the Filipino teacher while teaching in Thailand. While, cultural differences has the smallest in rank faced. Filipinos are well known for its strong Filipino ties wherein family are being loved whatever it takes. Therefore, it is a very serious challenge of the teachers in Thailand separated from their respective families and also Filipinos are known for its "PAKIKISAMA MENTALITY". Therefore, cultural differences are not a big problem to be faced by the Filipino teachers in Thailand.

Table 2. Challenges Met by the Filipino Teachers in Nakhon Sritammarat, Thailand
N = 51

Statement	WM	VI	Rank
Adjusting to new curriculum	3.10	C	5
Classroom Management	3.14	C	4
Mix of students of different abilities in the classroom	3.24	C	2.5
Separation from family	3.29	VC	1
Cultural differences	2.78	C	10
Interaction with the locals	2.92	C	7
Working with the locals	2.88	C	9
"Discrimination"	2.94	C	6
Language barrier	3.24	C	2.5
Visa and work permit	2.90	C	8
Average Weighted Mean	**3.04**	**Challenging**	

Legend:

Rating Scale	Verbal Interpretation (VI)
3.25 – 4.00	Very Challenging (VC)
2.50 – 3.24	Challenging (C)
1.75 – 2.49	Not so challenging (NSC)
1.00 – 1.74	Not at all challenging (NC)

This connotes that the separation from family is the biggest challenge faced by the Filipino teachers while teaching in Thailand since the Filipino family is so close to each other that they normally don't want to live far from each other. This can be seen in the Filipino tradition of not leaving the house when they become adults. Therefore, it is a very serious challenge of the teachers in Thailand separated from their respective families. While, cultural differences is the last in rank for the reason that, Filipino have a strong faith when it comes to their beliefs and values. The traits of Filipino people can easily adapt and have a strong motivation for what they want and what they do.

However, it is very obvious that the reasons why many Filipinos work abroad are mainly due to economic reasons and to support to their families. As Bolton and Bautista (2004) and Ubalde (2007) proved it and saw the economic factor as the driving force for Filipino teachers to seek work overseas. Ubalde (2007) added that Filipino teachers are highly esteemed abroad. They are paid up to ten times their salaries in the Philippines, and they are often important providers for their families.

Table 3. Benefits Gained by the Filipino Teachers in Nakhon Sritammarat,Thailand
N = 51

Statement	WM	VI	Rank
The teacher provided with free Medical Insurance.	1.61	SD	9
The teacher enjoyed free Visa and Work Permit.	1.65	SD	8
All National holidays are fairly paid by the employer.	2.92	A	2
The employer provides housing allowance to the employee.	2.16	D	6

The employee received finished contract incentives.	1.28	SD	10
The school established a guidelines for Salary Increase.	1.94	D	7
The school provides free lunch in school.	2.84	D	3
The school provides training and other professional development for all teachers.	2.26	D	4
The school provides proper dissemination of information of what will be the activities in the next few days.	2.20	D	5
The school provides enough teaching materials including computer and projector.	3.12	A	1
Average Weighted Mean	**2.198**	**Disagree**	

Legend:

Rating Scale	Verbal Interpretation (VI)
3.25 – 4.00	Strongly Agree (SA)
2.50 – 3.24	Agree (A)
1.75 – 2.49	Disagree (D)
1.00 – 1.74	Strongly Disagree (SD)

As observed in table 3, the highest benefit gained by the Filipino teachers in Thailand is item number 10, "the school provides enough teaching materials including computer and projector" with a weighted mean of 3.12 which can be interpreted as "Agree. While item number 5 "the employee received finished contract incentives" got the lowest rank with a weighted mean of 1.28 interpreted as "Strongly Disagree". Therefore, the quality of education is being observed by the Thai government because education has a major role in molding the students' productivity. Worldwide research has shown that advanced computer and projector can lead to an improved student learning and better teaching methods. It can be inferred that despite of all the challenges experienced by Filipino teachers in their entire teaching career in Nakhon Sritammarat Thailand, they can still enjoy some benefits socially and economically.

According to Suwapak Vesamaviboola, Supatra Urwongseb, Boonsong Hanpanichb, Duanpen Thongnoumb and Kamonrat Watcharinb With (2014) the development of science and technology, the world community has rapidly changed in every dimension. The world becomes interconnected with a blur land boundary. Therefore, the free flow of information in terms of economy, society, culture, politics and governance has been noticeable everywhere.

Table 4.1 displays the test of correlation between the respondents' perception of the challenges met and their profile in terms of age, educational attainment, teaching hours, length of service, type of learning institution, grade level taught, and monthly remuneration.

Table 4.1 Correlation Between the Respondents' Perception of the Challenges Met and Their Profile N = 51

Profile	X^2	df	Sig.	Interpretation	Decision
Age	23.49	12	0.024	Significant	Reject Ho
Educational Attainment	13.39	12	0.341	Not Significant	Do Not Reject Ho
Teaching Hours	8.09	8	0.424	Not Significant	Do Not Reject Ho
Length of Service as EFL teacher	9.48	8	0.304	Not Significant	Do Not Reject Ho
Type of Learning Institution	6.587	2	0.037	Significant	Reject Ho
Grade Level Taught	9.44	6	0.150	Not Significant	Do Not Reject Ho
Monthly Remuneration	19.68	10	0.032	Significant	Reject Ho

**Correlation is significant at 0.05 level (2-tailed)*

The result revealed that there is a significant relationship between the respondents' challenges met and their profile in terms of age, type of learning institution, and monthly remuneration since the computed significant value of 0.024, 0.037, and 0.032, respectively, is lesser than 0.05 level of significance.

However, there is no significant relationship between the respondents' challenges met and their profile in terms of educational attainment, teaching hours, length of service, and grade level taught since the computed significant value of 0.341, 0.424, 0.304, and 0.150, respectively, is greater than 0.05 level of significance.

Table 4.2 Correlation Between the Respondents' Perception on the Benefits Gained and Their Profile N = 51

Profile	X^2	df	Sig.	Interpretation	Decision
Age	8.85	6	0.182	Not Significant	Do Not Reject Ho
Educational Attainment	3.51	4	0.476	Not Significant	Do Not Reject Ho
Teaching Hours	3.28	4	0.511	Not Significant	Do Not Reject Ho
Length of Service as EFL teacher	3.03	4	0.553	Not Significant	Do Not Reject Ho
Type of Learning Institution	4.73	1	0.029	Significant	Reject Ho
Grade Level Taught	4.05	3	0.132	Not Significant	Do Not Reject Ho
Monthly Remuneration	11.99	5	0.035	Significant	Reject Ho

**Correlation is significant at 0.05 level (2-tailed)*

Table 4.2 presents the relationship between the respondents' perception on the benefits gained and their profile in terms of age, educational attainment, teaching hours, length of service, type of learning institution, grade level taught, and

monthly remuneration. The result depicted that there is a significant correlation between the benefits gained by the respondents and their profile as to type of learning institution and monthly remuneration since the computed significant values of 0.029 and 0.035 which are lesser than 0.05 level of significance.

However, there is no significant correlation between the benefits gained by the respondents and their profile in terms of age, educational attainment, teaching hours, length of service, and grade level taught since the computed significant value of 0.182, 0.476, 0.511, 0.553, and 0.132, respectively is greater that the preset level of significance 0.05.

Table 5 Correlation Between the Respondents' Perceptions on the Challenges Met and Benefits Gained N = 51

Challenges Met and……	r	Sig.	Interpretation	Decision
Benefits Gained	0.411	0.003	Significant	Reject Ho

**Correlation is significant at 0.05 level (2-tailed)*

Table 5 illustrates the test of correlation between the challenges met and benefits gained by the Filipino teacher-respondents in Nakhon Sritammarat, Thailand. The result shown that there is a significant degree of correlation between the challenges met and benefits gained by the teacher-respondents since the computed correlation value of 0.411 with a significant value of 0.003 which is lesser than 0.05 level of significance, thus the null hypothesis is rejected.

The result is similar to the study of Ubalde (2007) that Filipino teachers are highly esteemed abroad. They are paid up to ten times their salaries in the Philippines, and they are often important providers for their families. In the process according to Ubalde (2007), the Philippines lose many of its better, if not the best, teachers in specialty subjects such as Science, Mathematics and English. To phrase it differently: the Philippines experiences a significant brain-drain of its most educated and literate citizens. While this is a loss for the Philippines, it is a win for other countries. At the same time, all choices have consequences.

Ubalde (2007) also mentions that the Philippines find itself with more than a brain-drain issue. It also faces pedagogical challenges. There are disadvantages and advantages experienced by Filipinos when working as EFL teachers abroad.

CONCLUSIONS

In the light of the findings presented, the following conclusions are formulated by the researcher.

Based on the findings, all of the Filipino teachers working in Nakhonsritammarat, Thailand are working as full time teacher and majority are in government institution earning a salary ranging from 16,000- 25,000 baht (24,000 – 37,500 pesos) per month.

Separation from family is the biggest challenge faced by the Filipino teachers while teaching in Thailand since the Filipino family is so close to each other that they normally don't want to live far from each other. It is also concluded that despite of all the challenges experienced by Filipino teachers in their entire teaching career in Nakhon Sritammarat Thailand, they can still enjoy some benefits especially that the school provides enough teaching materials including computer and projector to them.

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PROPOSED ENHANCEMENT PROGRAM FOR THE WELFARE OF FILIPINO TEACHERS IN NAKHONSRITAMMARAT, THAILAND

AREAS OF CONCERN	SPECIFIC OBJECTIVES	STRATEGIES	PERSONS INVOLVED	TIME FRAME	SUCCESS INDICATORS	BUDGET
STRICT IMPLEMENTATION OF **PDOS** (PRE-DEPARTURE ORIENTATION SEMINARS) WHICH PREPARES FILIPINOS FOR SETTLEMENT OVERSEAS.	To address the adjustment concerns of Filipino teachers who will be working in Thailand.	Filipino teachers who intend to work in Thailand will not be allowed to fly without PDOS certificate of attendance.	POEA personnel OWWA staffs Workers of the Philippine Immigration	2018 onwards	The number of Filipino teachers working in Thailand who suffered depression will be reduced if not eliminated.	
FREE ACCESS TO **OWMS** (OFW WELFARE MONITORING SYSTEM) PROGRAM.	To closely monitor the current situation of all Filipinos working abroad	Set-up an internet Kiosk exclusive for the family members and relatives of OFW in each municipality.	POEA personnel OWWA staffs Government officials	2018 onwards	Family members of OFW are updated to the current situation of their love ones.	**P 59,520,000**
CREATE SPECIFIC POLICY ON **MOU** (Memorandum of Understanding) between Philippine and Thai government.	To uphold teachers protection and welfare	Publish the polish policy regarding protection and welfare of Filipino teachers, recruitment, and visa & work permit processing.	Philippine government officials through POEA & OWWA Thai government officials including immigration and labor department.	2018 onwards	Less complaints and suffering of Filipino teachers working in Thailand.	

ACADEMIC ATTITUDE, BEHAVIOR AND PERFORMANCE OF GENERATION Z STUDENTS

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ABSTRACT

The main purpose of this study was to determine the relationship between the academic attitude, behavior and performance of Generation Z students. The participants of the study were the Senior High School students, their parents and teachers in the districts of Candijay, Alicia, Mabini, Anda, and Guindulman during the school year 2019-2020. The respondents were selected using simple random sampling technique. The study employed a quantitative research design and a correlational research approach utilizing the modified survey-questionnaire to measure the relationships of academic attitude, academic behavior and academic performance of the Generation Z students. The results of the study revealed that the Generation Z students manifested moderate positive attitude on their schooling and that belongingness and engagement in learning is highly evident among them thus help develop their academic attitude. On the other hand, the Generation Z students' work habits, behavior and skills were moderately evident. Likewise, students gave value to their things, gentle and humble and have focus on academic discussions. The researcher concluded that the students' academic attitude and behavior does not directly affect students' academic performance and their academic performance does not significantly influenced by their academic attitude and behavior. Moreover, the parents, teachers and the students' assessment on their academic attitude and behavior in school varies. Thus, the researcher recommended that school administrators should provide clear directions to teachers on how to integrate values formation in all learning areas. Also, parents should help develop their child's spiritual and emotional skills in order to become morally upright individual.

Keywords: Academic Attitude, Behavior, Performance, Generation Z Students, Senior High School.

INTRODUCTION

The demand for developing attitude and behavior is presently echoing throughout every land. As educators, parents and even students are increasingly concerned about and affected by violence, growing social problems, and the lack of social cohesion. Educating student about values is a very difficult task for teachers. Learning values does not stop only in memorizing; it must be planted in learner's heart. It should be practiced every day. For teachers, they are not only training the students on the cognitive aspect but also with the affective aspect. They form the heart of every student. Academic performance is a complex student attitude and underlies several abilities, e.g., memory, previous knowledge or aptitude as well as psychological factors such as motivation, interests, temperaments or emotions, to name a few (Deary, Whiteman, Starr, Whalley, & Fox, 2004). Educational psychologists and researchers have argued that there are many determinants of academic performance, one of them being academic behavior (Chamorro-Permuzic & Furnham, 2003). In their relatively young existence, Gen Z has been shaped through a shared experience of exponential advances in technology, economic volatility and growth, ever-present public violence, and social justice movements (Seemiller & Grace, 2017. We all keep criticizing these Gen Z students on their way of living or whatsoever but if we overlook some of the factors, we are sure to see the bright side of this generation students. They happen to possess extreme liking for managing things their own way which is effective. They are so effective that the society today stops to listen to

their thinking. Be it any strata of the society our generation has proven that they stand on the other side of the table but in the same room. Hence the researcher believes that this study has important implications for fostering behavioral maturity among students that would ultimately benefit the students in terms of academic achievement. Regardless of perspective, a clear understanding of the relationship between behavior and academic performance would help generate appropriate assessment, prevention, and intervention strategies for at-risk or troubled youth. It can help a lot in motivating the students to engage in learning and giving their best effort in their performances. In connection to this, the researcher came up with this study. The study attempts to find out the academic attitude, behavior and performance of generation z students.

RELATED LITERATURE

Secondary Education can either adopt philosophies and practices that educate, mobilize, empower, and prepare Generation Z students to solve our world's problems or miss the opportunity to influence significantly the great minds of our next great generation. Modern Expectancy theory value achievement performance, persistence, and choice most directly to individuals' expectant. (Eccles 1987; Eccles et al. 1983). Also, Bandura's self-efficacy as individuals' confidence in their ability to organize and execute a given course of action to solve a problem or accomplish a task and somewhat challenging goals promote both self-efficacy and improved performance. (Bandura, 1977) and Learning Theory of Thorndike (1921) emphasized that learning is the result of associations forming between stimuli and responses. These theories relate to this study as to across all the learning areas, the ability to adopt themselves to any situations and have ability to understand what to do for a bright future. The said theory of learning is legally supported by the provision of 1987 Constitution of the Republic of the Philippines, Article X, Section 3. On Education states that, all educational institutions shall include the study of the Constitution as part of the curricula. They shall inculcate patriotism and nationalism, foster love of humanity, respect for human rights, appreciation of the role of national heroes in the historical development of the country, teach the rights and duties of citizenship, strengthen ethical and spiritual values, develop moral character and personal discipline, encourage critical and creative thinking, broaden scientific and technological knowledge, and promote vocational efficiency. At the option expressed in writing by the parents or guardians, religion shall be allowed to be taught to their children or wards in public elementary and high schools within the regular class hours by instructors designated or approved by the religious authorities of the religion to which the children or wards belong, without additional cost to the Government. Batas Pambansa Bilang 232 also known as the Education Act of 1982. An act providing for the establishment and maintenance of an integrated system of education. Pursuant to the Constitution, all educational institutions shall aim to inculcate love of country, teach the duties of citizenship, and develop moral character, personal discipline, and scientific, technological, and vocational efficiency. Generally, this study is also supported by Comprehensive Values Education (Villanueva, Joel Binay, Maria Lourdes Nancy S. August 2019), an act instituting values education in the k-12 curriculum and enhancing the Edukasyon Sa Pagpapakatao Program by incorporating the teaching of good manners and right conduct and including character building activities. According to Nilson (2016), 81.6% of the students polled said that they would be interested in learning if it were a subject that applied to them. Finding ways to get students interested is important, because student engagement affects learning outcomes, student development, performance, the reputation of an institution, and high achievement (Trowler, 2010). Based on findings from the Freelancing in America: 2016 study by the independent contractor site, Upwork and the Freelancers Union, 55 million people engaged in freelancing in 2016. This context might help explain why many Generation Z students want to work for themselves after college. However, these students know that they have a lot to learn about entrepreneurship as nearly two-thirds think that colleges and universities should teach students skills they can use to run a business, according to findings from Northeastern University's Innovation Survey. Their desire for self-employment as a career might affect their major and course selection along with their use of the career center for job preparation. Students of Generation Z values interconnection, information, and interaction. They feel a need to connect emotionally to what they are doing. More so than the generations before them. They want to know the why of what they are doing, as much as the what. If they feel that they are not making a difference in an organization, or if their leadership does not

appreciate their efforts, they are quick to find somewhere else to make a difference (Rampton, 2017). Findings from Northeastern University's Innovation Survey highlight that Generation Z students prefer to engage in hands-on learning opportunities in which they can immediately apply what they learn to real life. One Generation Z student from our study described the ideal learning environment as "needing to be actively doing the learning to obtain the most information." After much research, Trowler (2010) concluded that engagement is focused on three areas: Behavioral Engagement (students who were well behaved were more likely to be involved), Emotional Engagement (those who were involved emotionally, showed greater interest and a sense of community), and Cognitive Engagement (the students who were cognitively involved often went beyond the initial requirements, relishing the challenge). Engagement is defined as being responsive to an instructor and the course material, and focuses on increased achievement, positive behaviors, and a student's capacity to learn (Taylor & Parsons, 2011). The role of engagement affects not just learning but other aspects of the student, such as their emotional, intellectual, and social wellbeing (Student engagement, 2016). This importance to the student goes beyond just the classroom but finding ways to engage them has not been easy. Armstrong (1995) indicated that basic skills of study cannot be taught, but rather are acquired based on individual desire and the motivation of the learner. Finding ways to motivate Generation Z are important to the future of education (Schwarz & Zhu, 2015; Seemiller & Grace, 2016). Majority of GenZs (about 80%) think that school education is important to create a base for future. They take academics, cultural activities, small school level competitions and other events very seriously. The overall span of 14 years of school helps them to bring discipline in life (Schwarz & Zhu, 2015; Seemiller & Grace, 2016). The overall span of 14 years of school helps them to bring discipline in life. Now not all achieve equal success rate, but they manage to get into a college for further education of their interests. Very few, about 1-2% start building their careers at a school level which is less as compared to older generations because Government of all countries have implemented school education to be compulsory and have established several institutions to support the population. According to the UNESCO's 'Education for All Global Monitoring Report 2010', about 135 countries have constitutional provisions for free and non-discriminatory education for all. This may be discouraging the innovative spirit of a few but overall, it has been productive decision. Following are few acts/laws implemented in various countries. This motivation has always been valuable because as students become more motivated to learn, their academic performance, behavior, and self-esteem improve (Ferlazzo, 2015). However, finding the best way to aid in student learning, one must first understand the overall concept of motivation. Psychologists define attitudes as a learned tendency to evaluate things in a certain way. This can include evaluations of people, issues, objects, or events. Such evaluations are often positive or negative, but they can also be uncertain at times. attitude is the standpoint, or the stance one has towards something or someone. On the other hand, the behavior is the way in which one acts or conducts oneself, especially towards others. Thus, this is the main difference between attitude and behavior. (Upen, 2018)

OBJECTIVES

This study is intended to determine the relationship between Academic attitude, behavior and performance of generation z students of Candijay, Alicia, Mabini, Anda, Guindulman Districts of Bohol during the school year 2019-2020. The findings of the study served as the basis for proposing recommendations.

Specifically, it seeks to answer the following questions:

1. What is the profile of the students of generation Z in terms of:
   1.1. sex; and
   1.2 age?
2. What is the assessment of the respondents on the students' academic attitude?
3. What is the assessment of the respondents on the students' academic behavior in terms of?
   3.1 Work Habits;
   3.2 Behavior; and
   3.3 Skills?
4. What is the students' academic performance?
5. Is there a significant relationship between the students' academic performance and:
   5.1. academic behavior; and
   5.2. academic attitude?
6. Is there a significant correlation between the students' academic behavior and attitude?
7. Is there a significant difference between the assessment of the respondents on the following variables:

7.1. academic behavior; and
7.2. academic attitude?

8. Based on the findings, what intervention measures could be proposed?

RESEARCH METHODOLOGY

Design

The researcher utilized the descriptive survey method, which involved a questionnaire to determine the academic attitude, behavior and performance of generation z students of CAMAG (Candijay, Alicia, Mabini, Anda, Guindulaman) Districts.

Environment and Participants

The research was conducted in (15) fifteen public secondary schools of CAMAG District from the Municipalities of Candijay, Alicia, Mabini, Anda, & Guindulman with a total of 450 combined parents, teachers and students for the SY 2019-2020. This district is located at the eastern part of Bohol and is part of Third Congressional District of Bohol. The researcher randomly chose Senior High School students, teachers and parents as the respondents of the study. The study will involve senior high school students of 3 (three) secondary schools of CAMAG Third District of Bohol. Table below is shown for the distribution of the respondents. Also, Map in figure 2 is shown for the locale of the study.

Instrument

The researcher used modified survey questionnaire adopted from Academic Progress Questionnaire of the University of Tasmania, the Journal of Individual Psychology (2015) as a main data gathering tool for this study. The instrument consists of two parts; the first part is composed of the demographic profile of the students while the second and third part focused on questionnaire on academic attitude and behavior. The data collection was done through in-person distribution and was given enough time to think about the questions as stated on the questionnaire, thus producing more accurate information period.

Data Gathering Procedure

Permission to carry out the study was secured first from the Dean of the College of Advanced Studies and then from the Schools Division Superintendent. Upon the endorsement the research design, the researcher asked permission from the district supervisors to conduct the study in CAMAG (Candijay, Alicia, Mabini, Anda, Guindulman) Districts. After the approval to conduct the study, the researcher informed the teachers of the purpose of the study and its significance. The tools used to administer to the respondents were high confidentiality of the responses was strictly observed. The responses were tallied and collated in tables for the purpose of analysis and interpretation. All data were treated statistically to test the hypothesis through the guidance of the statistician.

Data Analysis

To determine the sewing equipment / facilities and academic achievement of secondary schools, the percentage, weighted mean, Pearson correlation, and ANOVA (Single Factor) were used.

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

The presentation, analysis, and interpretation of data based on the results gathered from the respondents among the Senior High School students, teachers and parents coming from 3 (three) secondary schools of Candijay, Alicia, Mabini, Anda, & Guindulman Districts comprising CAMAG. The respondents of the study were 150 senior high students, 150 teachers and 150 parents of CAMAG (Candijay, Alicia, Mabini, Anda, & Guindulman) Districts during the school year 2019-2020.

Table 1. Profile of the Student-Respondents N=150

Variables	Frequency	Percentage (%)
1.1 Sex		
Male	38	25.33
Female	112	74.67
Total	**150**	**100%**
1.2 Age		
16 yrs. Old below	46	30.67
17 yrs. Old	87	58.00
18 yrs. Old	15	10.00
20 yrs. Old above	2	1.33
Total	**150**	**100%**

Table 1 shows the profile of the pupil respondents. As to sex, it reveals that majority of the respondents were females with 74.67% of the population equivalent to one hundred twelve (112) respondents and only thirty-eight (38) out of 150 were males with a percentage of 25.33%. It indicates that the population of the respondents

were dominated by females and it is anticipated that their discernment about the study is essential.

As to age, it illustrates that 17 years old (17) got the highest rank with a percentage of 58.00% and twenty years old (20) has the lowest rank with a percentage of 1.33%. This can be inferred that student-respondents were exactly suited for their age level as to identify them as generation z learners.

Age is considered one of the independent variables that may likely affect the academic performance of students in this study. Cognitive development and maturity (which are associated with age) are necessary for a worthwhile performance of students. Age of the individual, as it increases, usually affects the various developmental changes. It also affects every area of human performance (Ukueze, 2007).

Moreover, academic performance is a complex student attitude and underlies several abilities, e.g., memory, previous knowledge or aptitude as well as psychological factors such as motivation, interests, temperaments or emotions, to name a few (Deary, Whiteman, Starr, Whalley, & Fox, 2004).

Table 2. Respondent's Assessment on Students' Academic Attitude N=450

Statement	WM	DI
1. I share my learning problems easily.	3.14	ME
2.Students are provided help in learning activities	3.37	HE
3.I do not feel bored with the lessons	3.05	ME
4.I feel lucky that I am a student of this school.	3.46	HE
5. It is a privilege to study in this school.	3.34	HE
6. I adequately make use of the services given at school	2.93	ME
7.I feel lonely in the classroom.	2.21	LE
8. I am not able to have a healthy communication with my teachers.	2.19	LE
9. I do not feel that I belong to this school	1.98	LE
10. Teachers are only interested in hardworking students.	2.18	LE
11. My family considers my going to school unnecessary.	1.93	LE
12. Negative attitudes of the people in my close circle towards school negatively affect my eagerness.	2.20	LE
13. My efforts are being overlooked and this decreases my interest to study.	2.09	LE
14. I feel as if I am out of the activities in most of the courses.	1.95	LE
Average Weighted Mean (AWM)	**2.57**	**Moderately Evident**

Legend:

Range	Descriptive Interpretation (DI)	Weighted Mean (WM)
3.25 – 4.00	Highly Evident (HE)	
2.50 – 3.24	Moderately Evident (ME)	
1.75 – 2.49	Less Evident (LE)	
1.00 – 1.74	Not Evident (NE)	

In the dimension of academic attitude, table 2 revealed that item 4 "I feel lucky that I am a student of this school" garnered the highest weighted mean of 3.46 which is described as "Highly Evident" while item 9 "I do not feel that I belong to this school" got the least in rank and had a weighted mean of 1.98 which is described as "Not Evident".

It implies that belongingness and engagement in learning is highly evident among the student-respondent thus help develop the academic attitude. It is supported by Lirias (2009) which states that with a caring environment, students showed better achievement and the ones who were able to achieve were those who attained high achievement motivation.

Comfortable learning environment will create a good attitude and reduce the bad attitudes (Azizi, Halimah & Faizah, 2011). Hence, the lecturers need to identify the real attitude of students and thus be able to find a way to help and attract students. San Luis (2005) Education Digest, Improving Student Engagement states that the student's psychological and intellectual development in the home and school helps them expand relevant and related ideas in their lessons. Teachers develop competence among the learners, autonomy and opportunities to be creative and original as they work with others. They manifest engaged learning when given enough time to reflect and pursue areas of interest, view topics in new ways, raise questions and demonstrate learning. Educational psychologists and researchers have argued that there are many determinants of academic performance, one of them being academic behavior (Chamorro-Peruzzi and Furnham, 2003).

Table 3. Respondent's Assessment on Students' Academic Behavior

Statement	WM	DI
Work Habit		
He/she comes to school early	3.21	ME
Absences on the class is minimal	3.17	ME
Finishes an assigned task in the given time.	3.15	ME
Student's interest to go to school is evident in his/her work.	3.23	ME
He/she follows instructions and directions as well.	3.25	HE
Submits projects and contributions earlier or on time.	3.09	ME

His/her assignments are neat.	3.00	ME
He/she extends patience in doing activities inside the room.	3.16	ME
Energy in the whole day class is expanded	3.21	ME
Student's give value to their things.	3.32	HE
Good follower and a member of the group	3.09	ME
He/she accepts leadership responsibilities and tasks.	3.07	ME
Makes their assignments effectively and diligently.	3.08	ME
Student joins extracurricular activities	2.99	ME
His/her works are satisfactory	2.92	ME
Behavior		
The student's self-esteem is high	3.14	ME
He/she is not easily upset	3.09	ME
He/she becomes involve in school activities	3.14	ME
Non-violators of school rules	3.16	ME
The student is obedient and respectful	3.18	ME
He/she is helpful and responsible	3.16	ME
The student is tactful in his/her actions and words	3.07	ME
He/she is optimistic and joyful	3.14	ME
Accepts failures and learned from it	3.18	ME
The student is gentle and humble	3.21	ME
Always eager and enthusiastic	3.00	ME
Inspired to socialize outside and inside the room	3.08	ME
The pupil grows spiritually, emotionally and morally.	3.07	ME
Academic Skills		
The student has a focus on school's discussion	3.12	ME
He/she manifest physical and mental alertness to respond teacher's questions	3.01	ME
Energetically writes well with theme papers	3.01	ME
The student shows confidence to his/her classmates during recitations	3.05	ME
He/she answers higher order thinking skills in class	2.90	ME
Answers logical and critical questions	2.81	ME
Can answer thought provoking questions	2.78	ME
Average Weighted Mean (AWM)	**3.09**	**Moderately Evident**

Legend:

Range	**Descriptive Interpretation (DI)**	**Weighted Mean (WM)**
3.25 – 4.00	Highly Evident (HE)	
2.50 – 3.24	Moderately Evident (ME)	
1.75 – 2.49	Less Evident (LE)	
1.00 – 1.74	Not Evident (NE)	

In terms of work habit, table 3 revealed that item 10 "Student's give value to their things " got the highest weighted mean of 3.32 which described as "Highly Evident" while item 15 "His/her works are satisfactory" earned the lowest weighted mean of 2.92 which described as "Moderately Evident". It implies that sensible/physical valuing is highly evident among the student-respondent thus affecting their academic behavior.

In the context of Behavior, table 3 revealed that item 10, "The student is gentle and humble" got the highest weighted mean of 3.21 which is described as "Moderately Evident" while item 11, "Always eager and enthusiastic" earned the lowest weighted mean of 3.00 which described as "Moderately Evident". It implies that students manifest a positive behavior.

In terms of Skills, table 8 revealed that item 1 "The student has a focus on school's discussion" with a weighted mean of 3.12, which is described as Moderately Evident while item 7, "Can answer thought provoking questions" earned the lowest weighted mean of 2.78 which is described as "Moderately Evident". It implies that students manifest good academic skills and interested in their lessons.

It is supported with the study of Seemiller and Grace (2017), Generation Z learners in their relatively young years has been shaped through a shared experience of exponential advances in technology, economic volatility and growth. Gen Z values interconnection, information, and interaction. They feel a need to connect emotionally to what they are doing. They happen to possess extreme liking for managing things their own way which is effective. Generally, academic behavior was found strongly related to academic performance. However, it is important to note that behavioral variable appeared strongly related to high achievement for instance to high level of intelligence quotient. Therefore, efforts should be made by all teachers to augment students' attitudes and behavior towards learning as these would propel them to achieve higher in the learning process. However, further research needs to be done to investigate into relationships and plausible causes for academic achievement among university students.

In line with the study of Nilson (2016), 81.6% of the students polled said that they would be interested in learning if it were a subject that applied to them. Finding ways to get students interested is important, because student engagement affects learning outcomes, student development, performance, the reputation of an institution, and high achievement (Trowler, 2010).

Table 4. Students' Academic Performance
N=150

Descriptor	**Grading Scale**	**Frequency**	**Percentage %**
Outstanding	90-100	96	64.00
Very Satisfactory	85-89	34	22.67
Satisfactory	80-84	20	13.33
Fairly Satisfactory	75-79	0	0.00
Did Not Meet Expectations	**Below 75**	0	0.00
Total		**150**	**100%**

Table 4 illustrates the students' academic performance. Majority of the student-respondents obtained a rating of "Outstanding" with a frequency of ninety-six (96) or exactly 64% and none of them got a rating of below 75. This means that most of the student-respondents performed well in school.

Academic performance is a complex student attitude and underlies several abilities, e.g., memory, previous knowledge or aptitude as well as psychological factors such as motivation, interests, temperaments or emotions, to name a few (Deary, Whiteman, Starr, Whalley, & Fox, 2004).

Table 5. Relationship Between the Students' Academic Performance, Behavior and Attitude
N = 150

Academic Performance and….	R	p-value	Interpretation	Decision
Academic Attitude	-0.003	0.975	Not Significant	Failed to Reject Ho
Academic Behavior	0.125	0.127	Not Significant	Failed to Reject Ho

**Correlation is significant 0.05 level (2-tailed)*

Table 5 illustrates the test of relationship between the students' academic performance and their academic behavior. The result revealed that there is no significant relationship between the students' academic performance and their academic attitude, *r (148) = -0.003, p=0.975.* This denotes that students' academic attitude does not contribute much in their academic performance in school.

Contradicting to the Kamaraj et al. 2008 achievement is a fundamental aspect of everyday life, affecting people's work, interpersonal relationships, sense of being, and leisure. Academic achievement is strongly influenced by psychological factors. Research on academic achievement of young students, provides no reliable and consistent indication concerning the extent of creativity, age and gender on academic achievement. Likewise, there is no significant relationship between the students' academic performance and their academic behavior, *r (148) =-0.125, p=0.127.* This implies that academic performance of the students does not depend greatly on their academic behavior. It further denotes that the students' academic performance does not influenced by their academic attitude and behavior.

This deviates some studies about student's academic achievement can be influenced by their attitude and behavior. San Luis (2005) Education Digest, Improving Student Engagement states that the student's psychological and intellectual development in the home and school helps them expand relevant and related ideas in their lessons. Thus, student's attitude and behavior cannot only be defined in their grades or academic performance. They may not have an outstanding grade, but they may apply these learning in school in their respective homes as being a good son, daughter or as a sibling.

Table 6. Relationship Between the Students' Academic Behavior and Attitude
N = 150

Academic Performance and….	R	p-value	Interpretation	Decision
Academic Attitude	0.042	0.610	Not Significant	Failed to Reject Ho

**Correlation is significant 0.05 level (2-tailed)*

Table 6 depicts the test of relationship between the students' academic behavior and their academic attitude. The result shown that there is no significant relationship between the students' academic behavior and their academic attitude, r (148) =-0.003, p=0.975. This infers that there is no significant association between the attitude and behavior of students in school. This means further that, after a student manifest good academic behavior in school it doesn't mean that the said student will also show good academic attitude. According to Ramar Veluchamy et al. 2005, Generation Z is rapidly replacing Millennials on high school campuses. They have different motivations, learning styles, characteristics, skill sets, and social concerns than previous generations.

Table 7 displays the test of difference between the assessment of the respondents on the students' academic behavior and academic attitude. The result expressed that there is significant difference between the assessment of the respondents on the students' academic attitude since the computed F-value of 3.117 with a computed p-value of 0.043 which is lesser than 0.05 level of significance, thus the null hypothesis is rejected.

Table 7. Difference Between the Assessment of the Respondents on the Students' Academic Behavior and Attitude
N = 150

Variables	F	p-value	Interpretation	Decision
Academic Attitude	3.177	0.043	Significant	Reject Ho
Academic Behavior	10.105	<0.001	Significant	Reject Ho

**Correlation is significant 0.05 level (2-tailed)*

Likewise, there is significant difference between the assessment of the respondents on the students' academic attitude, *F (2,447) =3.177, p<.001*, thus the null hypothesis is rejected. Moreover, the researcher use posts hoc test to explore difference between multiple groups means.

Multiple Comparisons

Variable		Mean Difference	p-value	Interpretation	Decision
Academic Attitude					
Students	Teachers	0.035	0.735	Not Significant	Failed to Reject Ho
	Parents	0.075	0.244	Not Significant	Failed to Reject Ho
Teachers		0.109	0.049	Significant	Reject Ho
Academic Behavior					
Students	Teachers	0.190	0.001	Significant	Reject Ho
	Parents	-0.109	0.925	Not Significant	Failed to Reject Ho
Teachers		0.211	<0.001	Significant	Reject Ho

The result of the post hoc test revealed that there is sufficient evidence of significant difference between the assessment of the teachers and parents on the academic attitude of the students, *p=0.049,* the assessment of the teachers and students on the academic behavior, *p=.001*, and the assessment of the teachers and parents on the students' academic behavior, *p<.001*. This signifies that the assessment of the respondents on the students' academic attitude and behavior is significantly different.

The need to recognize the voice of the students inside the classroom means acknowledging their vital role in the learning process. Giving students a voice entails more than asking them for comments and feedback. They should share in the decision-making and construction of knowledge. The teacher consequently becomes a co-learner and facilitator as well as a source of knowledge (Henson and Eller, 1999).

SUMMARY

The main objective of the study was to determine the Academic attitude, behavior and performance of generation z students of Candijay, Alicia, Mabini, Anda, Guindulman Districts of Bohol during the School Year 2019-2020.

The descriptive/documentary design was used with the aid of the modified survey questionnaire as instruments in gathering the necessary data. The gathering tool was distributed to the respondents, there were 150 student-respondents, 150 teacher- respondents and 150 parent-respondents in CAMAG Districts. After the retrieval of the questionnaire, the gathered data were tallied and collated and illustrated through tables. The needed data were statistically analyzed and interpreted.

FINDINGS

Based on the data analysis, the following findings were established and summarized as basis for inferring conclusions and providing with appropriate recommendations:

1. **Profile of the student-Respondents.** The respondents were composed of 150 students who were determined in terms of their sex, age and academic performance.
   1.1 **As to Sex.** Female students outnumbered males.
   1.2 **As to Age.** Majority, 58% of the students were 17 years old and only 2 of them aged 20 years old and above.
2. **As to Academic Attitude of Students.** The academic attitude of student-respondents was described as "Moderately Evident".
3. **As to Academic Behavior of Students.**
   3.1 **On Work Habits.** The student-respondents revealed moderately evident in terms of work habits.
   3.2 **On Behavior.** The student-respondents showed moderately evident in terms of behavior.
   3.3 **On Skills.** The student-respondents revealed moderately evident in terms of skills.
4. **Academic Performance**. Majority or 64% of the student-respondents were "Outstanding" and none of them got an average grade of below 75 which is described as "Did Not Meet Expectation"
5. **Relationship Between the Students' Academic Performance, Attitude and Behavior**. There is no significant relationship between the students' academic performance and attitude. Likewise, academic performance and behavior is not significantly related.
6. **Relationship Between the Students' Academic Attitude and Behavior**. There is no significant relationship between the students' academic attitude and behavior.
7. **Difference Between the Assessment of the Respondents on the Students' Academic Behavior and Attitude.** There is a significant

difference between the assessments of the students, parents and teachers on the students' academic attitude. Likewise, there is significant difference between the assessments of the respondents on the students' academic behavior. The respondents differ from their perception on the academic performance, attitude and behavior based on their responses.

Multiple Comparisons on the respondent's assessment.

The post hoc test revealed that there is enough evidence of significant difference between the assessment of the teachers and parents on the academic attitude of the students. On the other hand, there is also an enough evidence of a significant difference between the assessment of the teachers and students on the academic behavior.

CONCLUSIONS

Through the findings, these conclusions are formulated:

1. Students' academic attitude and behavior does not directly affect students' academic performance.
2. The students' academic performance in the school was not significantly influenced by their academic attitude and behavior.
3. Moreover, the parents, teachers and the students themselves have different assessment on their academic attitude and behavior in school.
4. Therefore, there is a no direct relationship between attitude and behavior. Likewise, by studying someone's behavior in a situation or towards a person, which is also a major study in psychology, one cannot discern what kind of attitude that person holds. Hence, there is a difference between attitude and behavior.

RECOMMENDATIONS

Based on the implicated conclusions, the researcher advances the following recommendations for sustainable teaching-learning processes.

1. Administrators should provide clear directions on how to integrate values formation in all learning areas.
2. Teachers should conduct classroom-based value-laden activities to address the needs of Generation Z learners.
3. Parents should help their children develop their child's spiritually and emotional skills in order to become morally upright individuals.
4. Generation Z students should actively participate in all value-laden activities as to improve their academic attitude and behavior to adopt socially and become morally upright individual.
5. Future researchers may use the findings of the study as basis for a future research endeavors to improve the academic performance of Generation Z learners.
6. Schools or institution must have regular parent-student and parent-teacher conference to sustain their academic attitude, behavior and performance.
7. A proposed intervention measures through Values Education Department, training and seminar on Reflective Teaching and Meeting the threats and challenges of generation z learners through responsible parenthood. Thus, help improve the academic attitude and behavior of the students and would reinforce good character and meaningful learning of students.

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"Everybody today seems to be in such a terrible rush, anxious for greater developments and greater riches and so on, so that children have very little time for their parents. Parents have very little time for each other and in the home begins the disruption of peace of the world."- Mother Teresa. This famous line ignites her will to pursue this study and make a difference. This humble contribution would not have been possible without the unyielding support of individuals who kept on inspiring me to try and aim high. Moreover, the success of the study cannot be solely attributed to the hard work of the researcher but also to the aggregate help and valuable expertise of the following whom the researcher owes the deepest gratitude:

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Researcher

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PERCEIVED EFFECTS OF TECHNOLOGY-BASED INSTRUCTION IN TEACHERS' AND PUPILS' PROFICIENCY

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ABSTRACT

Different technologies are utilized within the educational system all over the globe for the past decades and its perceived effects have been a subject of debate among scholars. The rampant influence of both offline and online technologies has received intensive attention in education. The aim of this research paper was to determine the perceived effects of offline and online technology-based instruction on the Grade 6 teachers' and pupils' proficiency. The researcher also wanted to determine the difference between teachers and pupils' proficiency in the usage of technology in instruction. The data were gathered through descriptive survey using purposive sampling on schools with internet coverage and simple random sampling on pupil-respondents with the aid of the modified questionnaire. The analysis was performed on a sample of 170 selected grade 6 pupils and 20 teacher-respondents in public elementary schools in the district of Mabini. The result of the study revealed a significant difference between the respondents proficiency in using online technology-based instruction since the computed significant value of 0.019 was lesser than the 0.05 level of significance hence the null hypothesis was rejected. On the other hand, it unveiled no significant difference on the respondents' proficiency in using offline technology-based instruction. It was further revealed that the teacher-respondents found it "Effective" when technology was integrated in instruction. Additionally, it was proven that there was no significant relationship between the respondent's proficiency in using offline technology-based instruction and its positive and negative effects since it had the computed correlation value of 0.411 and -0.069, respectively. The same result showed for the respondents' proficiency in using online technology-based instruction and its positive and negative effects with the corresponding significant value of 0.072 and 0.772 which were greater than the 0.05 level of significance thus the null hypothesis was accepted. The data gathered had been tallied and analyzed, thus, recommendations were formulated to address the identified issues and concerns. The researcher strongly encourages the Department of Education to provide accessible offline and online technologies as the result of the study find it very effective in improving academic performance of the pupils.

Keywords: Perceived Effect, Pupils' Proficiency, Teachers' Proficiency, Technology

INTRODUCTION

Technology has been an ongoing marvel on the history of mankind that has continued to flourish over the years. It allows the most difficult tasks to become seamlessly easy and progressively efficient. Technology in education has allowed the dissemination of knowledge to be delivered easily which allows for quicker and more effective communication. Likewise, the use of technology in instruction to improve pupils' learning has received extensive attention. The development of technology as a new technique of teaching has made radical changes in the traditional process of teaching. The traditional teaching has slowly become obsolete in the 21st century learning since most of the young generations are exposed to digitalization. Pupils have changed in the way they learn and teachers need to take the most effective methods of teaching,– that is technology-based instruction. Technology based instruction uses technology to deliver training and instructional materials (Britland, 2013). It allows pupils to have freedom to discover solutions to problems both independently and collaboratively. This enables them to be active learners who have thirst for discovery and knowledge. In an article written by Livingston (2016), he stressed the significance of

technology as a necessity to narrow education gap among developing countries. It was further stated that the situation among schools in Kenya are underfunded and inadequately staffed especially in rural areas where affordability of technology seems impossible. Kenya's government struggles to provide the public services necessary to keep pace with economic growth. Unemployment rates are among the world's highest, and infrastructure is lacking (U.S. News, 2018). As cited in the study of Jhuree (2005), countries that fail to recognize and act according to the global trends in technology and new methodologies in education and training may find it hard to compete in the global economy (Christensen, 1997; Dellannoy, 2000). DepEd's Bureau of Curriculum Development Director Jocelyn Dra. Andaya stressed in a conference that the vital step towards enhanced quality education in the Philippine Basic Education is through integrating technology based instruction (Santisteban, 2017). The ethical and responsible use of technology can greatly boost the learning capability of learners as well as teacher's performance. In the recent years, an increase of instructional technologies has been observed in public schools in the District of Mabini. While the access and availability of instructional technologies have significantly increased in public schools throughout the country, questions persist as to the impact of these technologies in instruction to the planning and delivery of lessons as well as the perceived benefits and impediments to the learning process. Hence, this study aims to determine the effects of technology based instruction to the teachers and pupils performance in selected public schools in Mabini District.

RELATED LITERATURE

Dual Coding theory proposed by Allan Paivio implies that pupil's brain obtains and retains information mainly through visual and auditory channels that learners can accumulate through processing, organizing and utilizing visually coded information. A theory by Jerome Bruner, Constructivist theory views learning as personal, reflective and transformative process where ideas, experiences and points of view are processed into something new (Bruner, 1960). The theory of Diffusion of Innovations by Everett Rogers addresses the model of receiving every innovation. In technology based instruction, this theory serves as a guide among "digital immigrants" for it describes the steps in technology innovation, process and characteristics in accepting new technologies as well as learner's role in the receiving process of technological innovation. This relates to the study about the proficiency of teachers and pupils in using technology.

The aforementioned theory of learning is legally supported by the provision of the Philippine Constitution of 1987 specifically states in Sec. 10 and 12 of the Article XIV which "recognizes science and technology as essential part in achieving national development and progress and prioritizes the promotion and adaptation of technology education, training and services". Also in developing countries such as United States, the Elementary and Secondary Education Act of 2001 mandates technology integration in all areas of K-12 education, from reading and mathematics to science and special education (U.S. Department of Education, 2002). Under this Act, educator leaders of the State and the local levels are expected to develop plans to effectively utilize educational technologies in the classroom. This aims to strengthen the quality education being provided to the learners and improve academic achievement measured primarily by student performances on State standardized tests. Henceforth, the Philippine government recognizes the importance of technology in Education as it implemented DepEd Order 78, s. 2010 stipulates the guidelines on the implementation of the DepEd Computerization Program (DCP). It aims to promote the right of all citizens to take appropriate steps in making education accessible to all and is geared towards technology transformation of education. In like manner, it provides public schools with appropriate technologies that would enhance the teaching-learning process and meet the challenges of the 21st century education.

The following research readings and studies were reviewed to provide insights into the focus of the problem. Technology based instruction has been considered as key in preparing pupils for the future when integrated successfully into the classroom (Wilson, 2014). In the study of Suhr, Hernandez, Grimes & Warschauer (2010), studied the effect of laptop program for primary pupils in California and revealed after two years of the experiment, a difference in pupils performance between pupils who received a laptop and those who didn't. It was concluded that those pupils who received laptop performed better in English language and arts tests. In a similar study conducted by Harris, Al-Bataineh, Al- Bataneih (2016), it was revealed that students who were taught using technology aided instruction got significantly

higher scores than those in the control group. Students elicited positive response with greater motivation to participate and be attentive in the lesson. However, Bulman & Fairlie (2016) address the effects of technology in education in the paper Technology and Education: Computers, Software and the Internet and revealed the ambiguous impact to learning which has limited educational gains. According to Sileo &ubi Sileo (2008), pupils may be more likely to cheat because they have more time and energy, may be lonely, and have a lack of personal contact with the teacher. A major problem with technology based instruction is that many public schools could not afford to have their own instructional technologies. Schools vary on the availability of these instructional technologies. In addition, frequency of its usage and methods used could affect teachers and pupils performance. If there is a limited resource of technology this could alter the teacher's and pupils' performance. Consequently, it solely depends on the teacher what technology to use in reinforcing learning. If a student can receive similar amount and extent of information, intertwining and interacting both visual and auditory channels, learning process can become much more effective (Ouyang & Starley, 2014).

The frequency of the use of technology also determines the capacity limitation of information processing within a certain time frame. Navarro (2012) affirms the positive effects in the use of technology in the classroom and remarks greater benefits to pupils learning from teachers who are less regular users.

Barriers to technology-based instruction also include teacher's expertise with new technologies in instruction. In order for teachers to incorporate technology-based instruction into their classrooms, the teachers need training and professional development. According to Edward (2012) he stated the importance of professional development as vital to successful teaching. The student's success is anchored to the professional growth of teachers as they embrace the new methodologies in teaching.

An article written by Trucano (2005), lists the possible reasons why technology integration can negatively affect teacher's performance. Since most teachers are "digital immigrants", as coined by Prensky (2001) which refers to those who were not born into the digital world and has adopted the aspects of the new technology, only a few are confident users of technology and limited confidence affects the way the lesson is conducted. As a result, it brings fear among teachers and prevents them from utilizing technology in instruction.

In the study conducted by Cobb (2010) teachers who have undergone professional development courses revealed positive effects on their performance. The results showed an increase in teachers using CAI to develop lesson plans, an increase in teachers creating EPortfolios, and an increase in teachers helping students digital video reflections, and an overall higher comfort level among teachers in using the technology tools to improve pupils' achievement.

OBJECTIVES

The specific objectives of the study are:

1. What is the profile of the pupil-respondents in terms of:
   1.1 Age?
2. What is the profile of the teacher-respondents in terms of:
   2.1 Age;
   2.2 Highest educational attainment
   2.3 Teaching experience; and
   2.4 Relevant trainings/seminars attended?
3. What technology-based instruction is used by the teachers?
4. What is the level of proficiency of the teachers and pupils in using technology?
5. What are the perceived effects of technology-based instruction on teacher and pupil-respondents?
6. Is there a significant difference between the proficiency of teacher and pupils in the usage of technology-based education?
7. Is there a significant degree of relationship between the perceived effects of technology-based instruction on teachers and pupils proficiency?

RESEARCH METHODOLOGY

Design

This study employed descriptive survey with inferential research design. Quantitative data from the survey-checklists were used to come up with a general picture of the research problem.

Environment and Participants

The Mabini District of Bohol, being the locale of the study, is a coastal municipality located along the eastern portion of the province of Bo-

hol. It is composed of 22 public elementary schools. Each school is managed by a principal, head teacher, or school-in-charge. Meanwhile, the distribution of the respondents was done through purposive selection of schools with internet connection coverage and employed a simple random sampling to select pupil-respondents each Grade 6 section to gather more comprehensive and reliable data. There were a total number of 20 teacher-respondents and 170 pupil-respondents who participated in the survey.

Instrument/Tool

The main instrument used by the researcher in determining the perceived effects of Technology-based Instruction to teachers' and pupils' proficiency was a modified questionnaire about the effects of technology in instruction; a questionnaire from Centre for the Study of Learning and Performance (CSLP) at Concordia University in Montreal, Quebec in collaboration with the Eastern Townships School Board and Sir Wilfred Laurier School Board was utilized.

The first draft of the questionnaire was the Demographic Profile. This component determined the pupil-respondents' profile as to age. Followed by the teacher-respondents' age, highest educational attainment, teaching experience and relevant trainings and seminars attended.

The third part comprises common instructional technologies divided into two categories: offline technologies and online technologies, which indicate how frequent these technologies were being used.

The last part of the questionnaire was the list of instructional technologies. This identified the level of teachers and pupils technology proficiency.

Data Gathering Procedure

Approval to conduct the study was sought by the researcher from the following: thesis adviser; Dean of Advanced Studies of BISU Candijay Campus; and Schools Division Superintendent. Then, a letter of permission to administer the questionnaires was sent to the respondents. The researcher distributed the questionnaires to the identified respondents. The confidentiality of their responses was assured by the researcher. After a week, the questionnaires were finally retrieved by the researcher for tabulation, treatment, analysis, and interpretation purposes.

Data Analysis

The data gathered were analyzed and interpreted through projection and deduction inferred from the percentages.

To obtain the percentage, the formula had been used which is:

$$P=F/N \times 100$$

Where:

P=Percentage
F=Frequency
N= No. of Pupils

To obtain the weighted mean, the formula had been used:

$$W.M. = W \times F/N$$

Where:

W.M. =Weighted Mean
W =Weight
F =Frequency
N= No. of Frequency

To obtain the correlation between the technology proficiency of teachers and pupils, the SPEARMAN RHO FORMULA had been used:

$$P= 1 - 6\sum D2/N (N2\_1)$$

Where:

P= Result of SPEARMAN RHO
D=Difference in ranks of each of the given pairs of ranks
N= No. of pairs of measurement

Finding the degree of freedom

$$Df=N-2$$

Where:

Df =Degree of Freedom
N= No. of pairs of measurement

THE FINDINGS

Table 1. Profile of Pupils as to Age
N = 170

Variables	Frequency	Percentage (%)
1.1 Age		
11 yrs. old	89	52
12 yrs. old	80	47
13 yrs. old	1	1
Total	**170**	**100%**

Table 1 shows the profile of the pupil respondents as to age. It revealed half of the pupil-respondents were within age of 11 years old with a percentage of 52% and the rest fell under the age of 12 years old and 13 years old with a per-

centage of 47% and 1%, respectively. This can be inferred that pupil-respondents were exactly suited for their grade level that's why they had the right level of understanding.

Table 2. Profile of Teachers as to Age, Highest Educational Attainment, Teaching Experience, Relevant Training and Seminars
N = 20

Variables	Frequency	Percentage (%)
2.1 Age		
25 years old and below	2	10
26-35 years old	11	55
36-45 years old	4	20
46-55 years old	3	15
56 years old and above	0	0
Total	**20**	**100%**
2.2 Highest Educational Attainment		
Bachelor's Degree	6	30
With units in MA	11	55
MA Degree Holder	1	5
with units in PhD/Ed. D	2	10
Doctorate Degree Holder	0	-
Total	**20**	**100%**
2.3 Teaching Experience		
5 years and below	**10**	**50**
6-10 yrs.	**7**	**35**
11-15 yrs.	**1**	**5**
16-20 yrs.	**1**	**5**
21-25 yrs.	**1**	**5**
26 years and above	**0**	-
Total	**20**	**100%**
2.4 Relevant Training and Seminars		
International Mind Education Specialist Trainings	1	5.00
Mass Training of Teachers-Grade 6 - 21st Century teaching	1	5.00
ICT Literacy Training	3	15.00
Training on Creative Facilitation Technique	1	5.00
No relevant Trainings and Seminars attended	14	70.00

Table 2 illustrates the profile of the teacher-respondents. As to age, the range twenty-six to thirty-five years old got the highest percentage of 55% and within the range fifty-six years old and above got 0 percent (%). This implies that most of the Grade 6 teachers were among the "digital immigrants" as coined by Prensky (2001). It indicates that most of the teacher-respondents had adopted the aspects of the new technology.

In terms of Highest Educational Attainment, majority of the teacher-respondents had taken MA units with a percentage of 55%. On the other hand, one of them had earned Master's degree with a percentage of 5 (%). It indicates that most of the teachers had pursued professional development courses.

With regards to teaching experience, half of the teacher-respondents had teaching experience within the range of 5 years and below, rank as first, with a percentage of 50 (%) and no one had gone beyond 26 years and above, yet. This implies that they had been into service recently.

Additionally, table 2.4 shows the relevant trainings and seminars related to technology. A number of teacher-respondents showed they had attended ICT Literary Training with a frequency of 3. A study conducted by Hsu (2010) discovered the advantages of teachers who are trained in the use of technology to more likely successful in integrating it into the classroom instruction.

As cited in the study of Betonio (2018), Mensah and Nizam (2016 asserted that teachers and school administrators should educate the learners on how to positively use technology for related educational purposes instead of their social life use only. However, a teacher can't teach something she/he doesn't know. A study conducted by Cobb (2010) posits the importance of professional development courses which revealed positive effects on teacher's performance.

Table 3.1 Usage of Respondents in Offline Technology-Based Instruction
$N_1 = 20$; $N_2 = 170$

Particulars	Teacher's Response		Pupil's Response	
	WM	VI	WM	VI
1. PowerPoint Presentations/ Excel/ Word	4.05	A	3.77	O
2.Speaker/ Radio	4.00	O	3.51	O
3. LCD Projector	4.00	O	3.22	S
4.Whiteboard/ Chalkboard	4.10	O	3.98	O
5.Television	2.45	R	1.89	R
6.Mobile/Cellular Phones	2.50	R	2.41	R
7. Lapel/ Microphone	1.95	N	1.53	N
Overall Weighted Mean	**3.29**	**Often**	**2.90**	**Sometimes**

Legend:

Rating Scale	Verbal Interpretation
4.20-5.00	Always (A)
3.40-4.19	Often (O)
2.60-3.39	Sometimes (S)
1.80-2.59	Rarely (R)
1.00-1.79	Never (N)

In line with the study of Navarro (2012) affirms the positive effects of frequent use of technology in the classroom and remarks greater benefits to pupils learning. Table 3.1 illustrates the usage of respondents in offline technology-based instruction. The results disclosed the highest frequency of the teacher and pupil-respondents was

the usage of whiteboard/chalkboard with the highest weighted mean of 4.10 and 3.98, respectively. Brown (2018) emphasized the importance of whiteboard/chalkboard for it makes it easier to control the pace of a lecture because it encourages writing while talking. Additionally, it's the most available and accessible in a classroom. PowerPoint presentations/ excel/MS Word ranked as second among respondents with the weighted mean of 4.05 and 3.77. Educational psychologist Richard Mayer (2009) found that using images to convey information improves a person's ability to recall facts. When text and graphics are combined, retention increases to 42% (Mayer, R.E., 2009). Visuals are an effective tool in pupil's retention. People generally remember about twice as much when they see something, than when they only hear it.

Table 3.2 Usage of Respondents in Online Technology-Based Instruction
$N_1 = 20$; $N_2 = 170$

Particulars	Teacher's Response		Pupil's Response	
	WM	VI	WM	VI
1.Video and Podcasting				
A.Youtube	3.25	S	2.87	S
B.Teachertube	1.65	N	1.89	R
C.Edutube	1.65	N	1.86	R
Average Weighted Mean	**2.18**	**Rarely**	**2.21**	**Rarely**
2.Presentation Tools				
A.Slideshare	3.00	S	2.37	R
B.LinkedIn	2.20	S	1.69	N
C.Prezi	1.60	N	1.58	N
Average Weighted Mean	**2.27**	**Rarely**	**1.88**	**Rarely**
3.Search Engines				
A.Google	3.70	O	3.31	S
B.Bing	2.15	R	1.75	N
C.Yahoo	2.80	S	2.08	R
D. Mozilla Firefox	2.80	S	2.16	R
E.Internet Explorer	2.80	S	2.32	R
Average Weighted Mean	**2.85**	**Sometimes**	**2.32**	**Rarely**
4.Social Networking Sites				
A.Facebook	3.55	O	2.86	S
B.Facebook Messenger	3.50	O	2.66	S
C.Instagram	1.60	N	1.68	N
D.Twitter	1.50	N	1.56	N
E.Electronic Mails	2.80	S	1.75	N
Average Weighted Mean	**2.59**	**R**	**2.10**	**R**
Overall Weighted Mean	**2.47**	**Rarely**	**2.13**	**Rarely**

Legend:

Rating Scale	Verbal Interpretation
4.20-5.00	Always (A)
3.40-4.19	Often (O)
2.60-3.39	Sometimes (S)
1.80-2.59	Rarely (R)
1.00-1.79	Never (N)

Table 3.2 manifests the usage of online technology-based instruction. Youtube, Slideshare, Google and Facebook were the most frequently used site, ranked as first, by both teacher and pupil-respondent. This infers that these four online sites had become number one and most popular among teachers and pupils. It further reflects that most of the teachers and pupils were exposed to online trends. Since traditional learning resources are limited, Harris (2017) asserts the importance of online technology in pupils' lives academically and socially. The usage of technology in education increased the level of accuracy in educational materials to a higher standard.

Table 4.1 Proficiency of Respondents in Using Offline Technology-Based Instruction
$N_1 = 20$; $N_2 = 170$

Particulars	Teacher's Response		Pupil's Response	
	WM	VI	WM	VI
1. PowerPoint Presentations/ Excel/ Word	3.60	AD	2.65	AV
2.Speaker/ Radio	3.55	AD	3.17	AV
3. LCD Projector	3.45	AD	2.34	B
4.Whiteboard/ Chalkboard	3.55	AD	3.62	AD
5.Television	3.45	AD	2.93	AV
6.Mobile/Cellular Phones	3.70	AD	2.99	AV
7. Lapel/ Microphone	3.10	AV	2.35	B
Overall Weighted Mean	**3.49**	**Advanced**	**2.86**	**Average**

Legend:

Rating Scale	Verbal Interpretation (VI)
3.25 - 4.00	Advanced (AD)
2.50 - 3.24	Average (AV)
1.75 - 2.49	Beginner (B)
1.00 - 1.74	Unfamiliar (U)

Herzig (2004) asserted the importance of proficiency on proper integration of technology in instruction. The proficiency in offline technology in Table 4.1 evidently divulges that teachers were on the "Advanced" level of proficiency in majority of offline technologies namely, Microsoft Office such as PowerPoint, excel and word; speaker/ radio, LCD projector, whiteboard/chalkboard, television and Mobile/cellular phones. Among the seven items, pupils answered that they were on "Advanced" level in using whiteboard/chalkboard with the weighted mean of 3.62. This implies that the respondents were most proficient when a technology is available and accessible.

Overall, it implies that teachers were advanced in offline technologies in instruction having the total weighted mean of 4.95. They had acquired the ability to competently use a broad spectrum of offline technologies. Similarly, pu-

pils' proficiency in using offline technologies summed 4.08 and was interpreted as average. Pupils demonstrated a general competency in a number of offline technologies.

Table 4.2 Proficiency of Respondents in Using Online Technology-Based Instruction
$N_1 = 20$; $N_2 = 170$

Particulars	Teacher's Response		Pupil's Response	
	WM	VI	WM	VI
1.Video and Podcasting				
A.Youtube	3.45	AD	2.80	AV
B.Teachertube	1.85	B	1.80	B
C.Edutube	1.85	B	1.94	B
Average Weighted Mean	2.38	Beginner	2.18	Beginner
2.Presentation Tools				
A.Slideshare	3.05	AV	1.95	B
B.LinkedIn	2.50	AV	1.74	U
C.Prezi	2.00	B	1.65	U
Average Weighted Mean	2.52	Average	1.78	Beginner
3. Search Engines				
A.Google	3.70	Advanced	2.96	Average
B.Bing	3.00	AV	1.89	B
C.Yahoo	3.45	AD	1.98	B
D. Mozilla Firefox	3.40	AD	1.91	B
E.Internet Explorer	3.50	AD	2.09	B
Average Weighted Mean	3.41	Advanced	2.17	Beginner
4. Social Networking Sites				
A.Facebook	3.60	AD	3.10	AV
B.Facebook Messenger	3.60	AD	3.02	AV
C.Instagram	2.70	AV	1.91	B
D.Twitter	2.30	B	1.56	U
E.Electronic Mails	3.20	AV	1.84	B
Average Weighted Mean	3.08	Average	2.29	Beginner
Overall Weighted Mean	**2.85**	**Average**	**2.11**	**Beginner**

Legend:

Rating Scale	**Verbal Interpretation (VI)**
3.25 - 4.00	Advanced (AD)
2.50 - 3.24	Average (AV)
1.75 - 2.49	Beginner (B)
1.00 - 1.74	Unfamiliar (U)

Table 4.2 presents the respondents' proficiency on online technologies. It demonstrates that among the Online technologies listed, teachers were most proficient in using search engines .Teachers were on the "Advanced" level on the usage of YouTube, Google, Yahoo, Mozilla Firefox, Internet Explorer, Facebook and Facebook Messenger. This implies that the teachers had acquired the ability to competently use wide variety of online technologies. The rest of online technologies further reflect that teachers were average and beginners in terms of technology proficiency.

On the other hand, the pupil-respondents were on the "Average" level of proficiency in terms of YouTube, Google, Facebook and Facebook Messenger. Overall, the result among the pupil-respondents revealed to fall in the "Beginner" criterion which implies that they are able to perform basic functions in a limited number of online technologies.

Table 5. Perceived Effects of Technology-Based Instruction
N=20

Statement	WM	VI
Positive Effects		
1.It helps to improve the academic performance of the students (e.g. grades)	3.65	VE
2. Promotes student collaboration.	3.55	VE
3.Attention of the class can easily be focused	3.45	VE
4.It makes the classroom environment conducive to learning	3.25	VE
5. Promotes the development of communication skills (e.g., writing and presentation skills).	3.30	VE
6. Makes teachers feel more competent as educators.	3.20	E
7. Gives teachers the opportunity to be learning facilitators instead of information providers.	3.50	VE
8. Is an effective tool for students of all abilities.	3.35	VE
9. Enhances my professional development.	3.55	VE
10. Eases the pressure on me as a teacher.	3.35	VE
11. Promotes teacher's participation in the selection of computer technologies to be integrated.	3.10	E
12. Helps accommodate students' personal learning styles.	3.35	VE
13. Promotes the development of students' interpersonal skills (e.g., ability to relate or work with others).	3.25	VE
Average Weighted Mean	3.13	E
Negative Effects		
1. Results in students neglecting important traditional learning resources (e.g., library books).	3.10	E
2. Is too costly in terms of resources, time and effort.	2.75	E
3. Is unnecessary because students will learn computer skills on their own, outside of school.	1.85	LE
4. Requires software-skills training that is too time consuming.	3.00	E
5. Will increase the amount of stress and anxiety students' experience.	2.10	LE
6. Is difficult because some students know more about computers than many teachers do.	1.60	NE
7. Teachers lack adequate training in the uses of technology for learning.	3.10	E
8. No technical staff to regularly maintain computers.	2.75	E
9. Computer resources are not readily available.	3.00	E
10. Computer technology isn't part of the students' home environment.	2.80	E
11. Requires extra time to plan learning activities.	2.80	E
Average Weighted Mean	2.62	E

Legend:

Rating Scale	**Verbal Interpretation (VI)**
3.25 - 4.00	Very Effective (VE)
2.50 - 3.24	Effective (E)
1.75 - 2.49	Less Effective (E)
1.00 - 1.74	Not Effective (NE)

The perception of the teachers on the effects of technology-based instruction illustrated in table 5 discloses the positive effects of technology in instruction as Effective (E) having the average weighted mean of 3.13. Among the thirteen items, teachers answered that using technology-based instruction helps improve the academic performance of the pupils with the weighted mean of 3.65. In a study conducted by Harris, et, al. (2016) revealed that students who were taught with technology aided instruction elicited higher scores.

Wilson (2014) has emphasized the significant use of technology in instruction as key in preparing pupils for the future which leads to positive attitude towards learning. However Bulman, et, al. (2016) addressed the adverse effects of technology in instruction. Among the eleven items under negative effects, item one (1) which states the usage of technology "Results in students neglecting important traditional learning resources" having the weighted mean of 3.10. This simply discloses that new technologies had earned substantial attention among pupils.

Table 6 Difference between the Respondents' Proficiency in Using Technology-Based Instruction
$N_1 = 20$; $N_2 = 170$

Technology -Based Education	Mean		t	Sig	Interpretation
	Teachers	Pupils			
Offline	4.63	4.24	1.193	0.246	Not Significant
Online	4.19	3.50	2.495	0.019	Significant

**Difference is significant at 0.05 levels (2-tailed)*

Table 6 shows the test of difference between the respondents' proficiency in using online and offline technology-based education. The result shown that there was a significant difference between the proficiency of the teacher-respondents and pupil-respondents in using online technology-based education since the computed significant value of 0.019 were lesser than the 0.05 level of significance. Hence, the null hypothesis was rejected.

This implies the respondents lack of technological proficiency needed to make use of online technologies and utilize them in the classroom. One factor was that the internet resource was not readily available and accessible and it may vary from one's location. According to Ouyang, et, al. (2014) a limited resource of technology alters the teacher's and pupil's proficiency.

However there was no significant difference between the proficiency of the teacher-respondents and pupil-respondents in using offline technology-based education since the computed significant value of 0.246 is greater than the preset level of significance 0.05. The perceptions of teachers and the pupil-respondents themselves on their proficiency level were statistically the same. This denotes that the respondents were equipped with the needed knowledge and expertise in using offline technologies.

Subsequently, most offline technologies are readily available and accessibility, it highly affects the respondents proficiency level. This is in line with the study of Benolirao (2016) where it is showed that adequate availability of educational technologies for both hardware and software elicited high proficiency level among the respondents.

Table 7. Relationship between the Pupils' Proficiency in Using Technology-Based Education and Its Perceived Effect
$N_1 = 20$; $N_2 = 170$

Pupils' Proficiency in Using Offline TBE and …	r	Sig	Interpretation	Decision
Positive Effect	0.118	0.621	Not Significant	Do Not Reject Ho
Negative Effect	-0.020	0.934	Not Significant	Do Not Reject Ho
Pupils' Proficiency in Using Online TBE and …	**r**	**Sig**	**Interpretation**	**Decision**
Perceived Effect				
Positive Effect	0.411	0.072	Not Significant	Do Not Reject Ho
Negative Effect	-0.069	0.772	Not Significant	Do Not Reject Ho

**Relationship is significant at 0.05 levels (2-tailed)*

Table 7 depicts the test of relationship between the pupils' proficiency in using technology-based education and its perceived effect. The result revealed that there was no significant relationship between the pupils' proficiency in using offline technology-based education and its positive and negative effect since the computed correlation value of 0.118 and -0.020, respectively with the corresponding significant value of 0.621 and 0.934 which were greater than the 0.05 level of significance. This means that pupils' level of proficiency cannot be influenced by the perceived effects of offline technologies.

Likewise, there was no significant relationship between the pupils' proficiency in using online technology-based education and its posi-

tive and negative effect since the computed correlation value of 0.411 and -0.069, respectively with the corresponding significant value of 0.072 and 0.772 which were greater than the 0.05 level of significance thus the researcher did not reject the null hypothesis. This denotes that the perceived effects of online technologies were not significantly related to pupils' proficiency.

The result of the study was opposing to the findings of Harris, et, al. (2016) which states that pupils who were taught using technology aided instruction got significantly higher scores. Furthermore, pupils elicited positive response with greater motivation to participate and be attentive in the lesson. A similar study conducted by Suhr (2010), revealed favorable result among students who were exposed to laptop program and performed better than those who did not. Several researches have shown the perceived effects of technology on pupil's proficiency.

CONCLUSIONS

The study concludes that:

Use of technology in the classroom by trained teachers led to increased student achievement, closes achievement gaps, and decreases dropout rates. The proper usage of technology in instruction will have great benefit however it required proper training among teachers and students as well as adequate and accessible resources. Consequently, teachers and pupils' proficiency had significant difference to the usage of online technology-based instruction. Hence, it can be concluded that factors such as availability and accessibility of online technologies affected one's proficiency. Meanwhile, pupils' proficiency in using technology-based instruction and its perceived effects had no significant relationship.

RECOMMENDATIONS

Based on the implicated conclusions, the researcher advances the following recommendations for sustainable teaching-learning processes.

1. The Department of Education should sustain and improve availability and accessibility of educational technologies to all schools.
2. The School Heads should be encouraged to feel the importance of using educational technologies and provide the teachers with requisite knowledge, through seminars and trainings, as for them to properly integrate technology in the classroom.
3. Teachers are also encouraged to develop their competence in terms of using educational technologies both offline and online.
4. Parents should continuously support their children particularly in the academic aspect through helping and assisting whatever be the needed in the classroom.
5. School shall provide ways to address the needs of the teachers and pupils and let them have access to the instructional technologies.
6. Future researchers may conduct similar study wherein these are of relevance to the specific area not covered in the study. Thus, adding empirical data.

PROPOSED ENHANCEMENT PROGRAM TO IMPROVE TECHNOLOGY IN INSTRUCTION

AREAS OF CONCERN	SPECIFIC OBJECTIVES	STRATEGIES	PERSONS INVOLVED	TIME FRAME	SUCCESS INDICATORS	BUDGET
INSTALLMENTT OF INTERNET IN SCHOOL PREMISES AND ALLOWING PUPILS TO ACCESS COMPUTERS	To enable the pupils to do some research through internet at a specified time.	Conduct fund raising and orientation for them to be aware on the rules and regulations in accessing computers for educational purposes.	Elementary pupils in Mabini School teachers School heads	2019 onwards	Students were aware with the proper use of internet and were guided on the proper usage of technology.	**P 100,000.00**
TRAININGS AND SEMINARS FOR TEACHERS	To train the teachers on the instructional technologies for them to use it effectively.	Participating in seminars and trainings with regards to technology.	School teachers School heads	2019 onwards	Teachers were knowledgeable with the proper use of instructional technologies.	**P 50,000.00**
MONITORING PLAN	To monitor the ongoing strategies implemented in technology in instruction.	Organize functional committee on monitoring pupils' usage of internet and computers	School heads Teachers Parents	2019 onwards	Goal sustained and success attained	**P 40, 000.00**

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BISU EMPLOYEES LEVEL OF COMPETENCE AND ATTITUDES TOWARDS INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

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ABSTRACT

The study was to ascertain the BISU Employees Level of Competence and Attitudes towards Information and Communications Technology (ICT) in Candijay Campus. It sought to answer the following questions: what is the demographic profile of the respondents in terms of age, sex, office, employment status; what is the level of competence of employees in the use of ICT in terms of basic computer operation and issues, use of application software, use of internet resources, and use peripheral ICT equipment; what is the attitude of employees towards the use of ICT. There were forty-one (41) respondents and the Four Point Likert Scale was used in answering the questionnaires. Among the four categories in the level of competence, respondents are fully competent on the use of internet resources and use of peripheral ICT equipment while basic computer operations and issues and the use of application software showed that employees were regular and confident user. Furthermore, the overall average as to level of competence results as regular and confident user. This indicates that respondents possess higher level of mastery in the usage of equipment and software. As to level of attitudes of employees, it obtained a descriptive value of strongly agree which disclosed respondents' positive and favorable attitude towards ICT. Moreover, respondents have a greater willingness to acquire ICT competencies.

Keywords: ICT; information and communications technology; competence; attitude

INTRODUCTION

ICT is the only technology being regarded as General Purpose Technology (GPT). ICT provides efficient practices to employees and it allows employees do their works conveniently. The use of ICT benefits to both employer and employee who makes extensive use of ICT, thus employees performing better in the paper works while employers becoming more precise in their strategic plans. Thus, gaining an additional way to estimate how competent employees make use of the concept.

As mentioned by Ayoku & Okafor (2015) that employees in the University of Libraries in Nigeria lack sufficient ICT competencies. It also reported that the employees in library professionals' Bangladesh insufficient support from higher authority, lack stable internet services and high cost of infrastructure development, insufficient ICT programs and economic support, lack of standards were the main barriers in promoting ICT competencies.

However, Lallana, et al. (2017) stated that the Philippines ranked high in terms of civil society use of ICTs. The country has one of the most active civil society sectors in Asia. However, the employees of some offices leave significant room for improvement. Several policies still need to be undertaken. Despite the many initiatives that have been started, standards and programs for ICT literacy are also needed. The country is still undertaken in terms of the supply of ICT services to the public and the ability to meet the demand for employee's participation. Some problem lies in the frail capacity of ICT agencies to respond the demands of open e-governance. This implies a gap which in many ways illustrate the low capacity of the state. At the same time, structures for the participation especially via ICT tools have been missing. Even if there is demand for participation, the lack of government capacity to address this

problem constricts the ability of the public sector to contribute to resolving this issue (Gupta, 2011).

The employees Bohol Island State University (BISU-CC) defined that ICT preparedness of employees is of great use in their works in order to increase productivity, to the point that technology helps employee to manage and make their works easier. The researchers have also recognized that most of the department offices have a common problem on the insufficiency and limited computer facility. Most of the employees do not know how to deal with faulty and infected computer units, they don't have enough trainings on ICT resulting to inefficiency in using ICT. They added that most offices have unstable internet connection. With the above-mention scenarios, this prompted the researchers to survey and determine the employee's level of competence and attitudes towards ICT.

REVIEW OF RELATED LITERATURE

Technology in the workstation allows workers to respond to their tasks fast and efficiently. Technology can help workers develop to higher levels. Knowing how to use computers is an interesting skill and it is not a waste of time. On the contrary, some are skeptical about computers influence on society, since they consider that computers dehumanize society, isolate people, and have potential to control people's lives (Rana,2013).

Ardies, et al. (2015) & Cheng (2012), also revealed that above 50 years older has low level of ICT usage than younger ones. Levels of competence in the use of ICT includes the basic computer operation and issues and use of application software such as word-processing, spreadsheets and presentations. However, it was observed that age differences regarding ICT use especially in basic computer operation and skills may influence ICT literacy level and young employees are more likely to be ICT users and more ICT literate than older age groups because older employees are slower to respond to rapid change in technology and increased reliance on computers than younger employees.

With the rapid advancement of information technology, use of computers is already part of many people's daily life. Those people engaged in electronic information and computer related professionals have to use computer for long period. In the study of Zhihui, et al. (2017) several findings stood out. One of these is that males showed more favorable attitude towards technology used than females. This finding indicated that women showed lower level of attitude towards technology use than their male counterparts and this finding was confirmed by recent studies.

In addition, another level of competence of the employees towards ICT is through the use of Internet resources. The rapid developments occurring in information and communication, is increasing the use of internet as well. Every day, the internet use is spreading everywhere, from education to finance, military to health and from the market place to entertainment industry social media. According to Turkstat (2013) data, internet use rate among the 19-74 age group reached to 48.9% in 2013 while it was 30% in 2007 in Turkey. Considering the widespread use of mobile devices, the internet is estimated to affect the lives of people much more.

Moreover, the Internet has become more important in every aspect of daily life especially with internet enabled mobile devices (Lenhart et. al., 2010). Lifestyle and interest of people have started to happen more in the Internet environment in this age of so called the internet age. In this context, the rapid development of the internet has also brought radical changes in employees' lifestyle and these changes have started to become a necessity (Earl &Kimport, 2011). The internet can process with a very important volume of transactions has now become a necessity. Internet changes in employee qualifications as well (Lenhart et al. 2010). Akman & Mishra (2015) stated that the internet needs to be used consciously by todays' employees and required competence needs to be gained for it. From this point, determining the issues to be good or bad in the context of the services offered on the internet is important in terms of increasing the training planning and the efficiency of institutions of this direction.

It can also be defined as the magnitude to which ICTs and computer peripherals are used daily and the frequency of such use in proportion to the amount of tasked performed using the ICT. Dansarki et al. (2015) states that in the late 1970's, Information Technology (IT) was the term used for computers and computer peripherals like printers, floppy disks drive, scanners and the early digital cameras, whereas the term Information and Communication Technology (ICT) describes technologies of the internet along with computer networks, World Wide Web, e-mail and search engines used in producing and sharing information. It can be referred to as those technologies that enable employees receive information

and communicate or exchange such information with others.

Attitude in the level of competence of the employees towards ICT usage play important role in computer related behavior (Tezci, 2011). Positive interest attitudes towards ICT usage comprehends confidence, anxiety and enjoyment/liking. Positive attitudes towards ICT is one of the important factors that explains and predicts teacher employee in Nigerian College use of ICT in the classroom (c, 2013). It relates to the extent in which ICTs are considered to be pleasant, the extent to which are considered as good idea, the extent which ICT are appealing and the extent to which ICTs are considered interesting (Teo, 2011). Hence, Ahmad et al. (2015) revealed a weak direct influence of attitude use in Nigerian College Education. However, in a study conducted in Nigeria on the antecedent factors to end-users symbolic acceptance of technology by Arekete et.al., (2014) findings have revealed that attitudes of employees has strong impact on technology use. Similarly in India by Rana (2013) has revealed that teacher employee attitudes are among the fundamental factors that influence successful ICT adaptation in the classroom.

Ahmed, et al. (2016) found a low level of ICT literacy among employees and librarians at the University of Libraries of Kawazulu-Natal, South Africa and the main problem was the lack of proper ICT training programs. A study reported a moderate level of ICT literacy in a population of 224 libraries professionals in Pakistan. It stated that the proper application of ICT resources in the libraries will improve positive attitude of librarian employees towards modern technologies in libraries. It further stated that this endeavor requires continuous education and training to staff. They also find a very low ICT literacy with the employees serving the University Libraries of Nigeria.

The Unified Theory of Acceptance and Use Technology (UTAUT) developed by Venkatesh (2003), supported and presented the relationship among searched engine tools, productivity software tools (word processing, presentation, spreadsheets, database, charts and graphs), social network tools, University's portal tools, general communication (e.g., e-mail, telephone) and document management systems (e.g., scanning, photocopying, archiving). It also stated that academic member staff and office employees usually have to adopt ICT with surrounding environment. This is important to know since ICT adaptation may increase workers productivity.

The Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975) predict and explained the actual behavior of a person when faced with new options of action. According to them, a person's actual behavior is determined by his or her beliefs and prior intention towards the given behavior and that prior, also referred to as behavioral intentions, is a significant predictor of behavior.

Behavioral intention itself depends on attitudes towards behavior and on subjective norms, while beliefs and evaluations of a person influence a person's attitude towards a given behavior. Attitudes reflect the positive and negative feelings a person has towards a behavior.

Technology Acceptance Model (TAM) developed by Davis (1989), identifies perceived ease of use, perceived usefulness and attitude as a key factors affecting actual system use and explains that attitudes plays a major role in determining technology acceptance. The attitude towards adaption will decide about the adapter's positive or negative behavior in the future concerning new technology. Generally, TAM specifies general determinants of individual technology acceptance and therefore, can be and has been applied to explain or predict individual behaviors across a broad range of end user computer technologies and user groups.

STATEMENT OF THE PROBLEMS

The main thrust of this study was to determine the BISU-CCC employee's level of competence and attitudes towards Information and Communication Technology (ICT).

Specifically, this study sought to answer the following questions:

1. What is the profile of the respondents in terms of:
   a. Age;
   b. Sex;
   c. Office; and
   d. Employment status?
2. What is the level of competence of employees in the use of ICT in terms of:
   a. Basic Computer operation and issues;
   b. Use of Application Software;
   c. Use of Internet resources; and
   d. Use of Peripheral ICT equipment?
3. What is the attitude of employees towards the use of ICT?

METHODOLOGY

The researchers used the descriptive survey method with the aid of questionnaire. The survey instrument was used to determine the profile of the respondents and the employee's level of competence and attitudes towards ICT from the different office groups in BISU. The Campus University, as satellite campus is located in Barangay Cogtong, one of the twenty-one (21) barangays of the Municipality of Candijay. The respondents of the study are the employees of BISU-CCC non-teaching employees from the different offices during the academic year 2018-2019.

To gather all the needed information, the researchers used a questionnaire adapted from the study of Yusuf (2011) as a primary tool to gather data and information. The questionnaire was divided into three parts: The first part was about the demographic profile of the respondent, this determines the employee's age, sex, office department and employee status. The second part was categorized into Basic Computer Operation and Issues, use of application software, internet resources and peripheral ICT equipment. The third part was about the attitudes of employees towards ICT. The questionnaire consisted of three categories. The first category consists of four items, the second category consists of thirty-three items and the third category consists of thirteen items. It was carefully worded to make it easy for the respondents to understand and to answer using the four point Likert Scale. Hence, negative questions are typically treated by negating an item thought to measure a construct of interest.

RESULTS

1. Demographic Profile of respondents

Table 1 The Demographic Profile of the Respondents

Age:	**Frequency**	**Percent (%)**
25 below	9	21.95
26-30	14	34.15
31-35	7	17.07
36-40	5	12.20
41 above	6	14.63
Total	**41**	**100%**
Sex:		
Female	34	82.93
Male	7	17.07
Total	**41**	**100%**
Office/College:		
Administration	12	29.27
Registrar	4	9.76
Library	3	7.32
Clinic	2	4.88
Income Generating Enterprises	2	4.88
Research & Extension	4	9.76
College of Advanced Studies	1	2.44
Supply	4	9.76
Guidance	2	4.88
Students Affairs Office	3	7.32
College of Fisheries & Marine Sciences	1	2.44
College of Technology & Allied Sciences	1	2.44
College of Teacher Education	1	2.44
Planning	1	2.44
Total	**41**	**100%**
Employment Status:		
Permanent	6	14.63
Non-permanent	35	85.37
Total	**41**	**100%**

Age. It revealed that almost half of the respondents were on the age range of 26-30 with fourteen (14) or 34.15% of the sample size. In contrast, the ages 36-40 has the lowest number of respondents with five (5) or 12.20%. This supports the study of Ardies, et al.(2015) & Cheng (2012), also revealing that above 50 years older has low level of ICT usage than younger ones.

Gender. It can be gleaned on the table that majority of the employees are female with the frequency of thirty-four (34) or 82.93% of the total sample size. On the other hand, the least of the respondents which are male have the frequency of seven (7) or 17.07%. This shows the dominancy of females working in the offices.

Office/College. It also shows that the respondents with the highest percentage according to the office/college were the Administration Office with the frequency of twelve (12) or 29.27% of the total sample size. While the least of the respondents came from College of Advance Studies, Planning Office, CFMS Faculty, CTAS Faculty and CTE Faculty with the frequency of one (1) or 2.44% of the total sample size. This means that Administration office has almost half of the respondents since this office have the wider office and greater number of employees who uses computer facilities in their works.

Employment Status. It shows that the non-permanent employees have the highest frequency of thirty-five (35) or 85.37%. In contrast, the permanent employees have the least number of respondents with the frequency of six (6) or 14.63%. The result implies that most of the employees that are working in BISU Candijay Campus offices are mostly non-permanent status.

2. Level of Competence of Employees in the Use of ICT in terms of:

A. Basic Computer Operation and Issues

Table 2.1 BISU employees level of competence towards ICT as to basic computer operation and issues

Items	WM	QD
1. I can locate and run an application program	3.95	RCU
2. I can search for files on computer system	4.46	FC
3. I can connect the computer and its peripherals	4.24	FC
4. I can access information on CD/DVD	4.05	RCU
5. I can organize electronic files into folders	4.32	FC
6. I can move files between drive	4.37	FC
7. I can print to various networked printers	4.10	RCU
8. I am aware of computer security, copyright and the law	3.41	RCU
9. I am aware of health and safety issues relating to the computing environment	3.73	RCU
Composite Mean	**4.07**	**RCU**

Legend:

Range	Symbol	Descriptive Value
4.20-5.00	FC	I am fully competent with this application/operation.
3.40-4.19	RCU	I am regular and confident user of this application
2.60-3.39	OU	I have used this occasionally but need further training
1.80-2.59	DU	I do not use
1.00-1.79	NA	I am not aware of this application/operation.

Table 2.1 presents the employees level of competence towards ICT as to basic computer operation and issues, it shows in item no. 2 "I can search for files on computer system" obtained the highest weighted mean of 4.46 described as fully competent with this application or operation, while, they gave item no. 8 "I am aware of computer security, copyright and the law" the lowest rating with a weighted mean of 3.41 described as regular and confident user of this application. The composite mean is equal to 4.07 described as regular and confident user of this application, which means that employees have a high level of competence towards the ICT.

B. Use of Application Software

Table 2.2 BISU employees level of competence as to Use of Application Software

Items	WM	QD
I can….		
10. Create open a new document in a word	4.68	FC
11. Use simple editing eg. bold, italics, centering, font size, etc.	4.71	FC
12. Use spreadsheet package very well	4.24	FC
13. Use spreadsheet to make predictions	3.90	RCU
14 Sort and filter data	4.17	RCU
15. Create a basic presentation package	4.02	RCU
16. Modify colors of text, lines and spaces on a slide	4.22	FC
17. Introduce animation into slides	3.66	FC
18. Set up data base	3.29	RCU
19. Enter and update data in a database	3.29	RCU
Composite mean	**4.02**	**RCU**

Legend:

Range	Symbol	Descriptive Value
4.20-5.00	FC	I am fully competent with this application/operation.
3.40-4.19	RCU	I am regular and confident user of this application
2.60-3.39	OU	I have used this occasionally but need further training
1.80-2.59	DU	I do not use
1.00-1.79	NA	I am not aware of this application/operation.

Table 2.2, reflects BISU employee's level of competence as to use of application software. Employees rated item no. 11 "I can use simple editing eg. bold, italics, centering, font size, etc." with the highest rating of 4.71 with the qualitative description of fully competent. This means that the employees can perform easily and are knowledgeable in using application software in terms of simple editing. In contrast, items no. 18 "I can set up database" and no. 19 "I can enter and update data in a database" have the same rank with the weighted mean of 3.29 labelled that employees are regular and confident user of this application. The composite mean obtained a weighted mean of 4.02 which simply implies that the respondents were regular and confident user with the use of Application Software.

C. Use of Internet Resources

Table 2.3 BISU employees level of competence as to use of internet resources

Items	WM	QD
I can….		
20. Access an Internet site	4.39	FC
21. Download files from the internet	4.41	FC
22. Send and receive e-mail messages	4.44	FC
23. Attach files to outgoing e-mails	4.41	FC
24. Set messages and file in created folders	4.29	FC
25. Save text and images from web pages	4.29	FC
26. Communicate online with other employees	4.44	FC
27. Do web searching	4.34	FC
28. Chat on the Internet using messaging tools	4.41	FC
Composite Mean	**4.38**	**FC**

Legend:

Range	Symbol	Descriptive Value
4.20-5.00	FC	I am fully competent with this application/operation.
3.40-4.19	RCU	I am regular and confident user of this application
2.60-3.39	OU	I have used this occasionally but need further training
1.80-2.59	DU	I do not use
1.00-1.79	NA	I am not aware of this application/operation

Table 2.3 presents the BISU employees level of competence as to use of internet resources. This illustrates that employees gave their highest rating on items no. 22 " I can send and receive e-mail messages " and no. 26 "I can communicate online with other employees " with the weighted mean of 4.44 which described that employees in these operation were fully competent. In contrast, items no. 24 "I can set messages and file in created folders" and no. 25 "I can save text and images from web pages" got the same rank with the weighted mean of 4.38 which means that employees on these operations were fully competent. The composite mean is equal to 4.38 with a qualitative description of fully competent, which means that the respondents believed that level of judgment was in the highest level of competence in using ICT.

D. Use of Peripheral ICT Equipment

Table 2.4 BISU employees level of competence to use of peripheral ICT equipment

Items	WM	QD
29. I can use a digital camera to capture images	4.17	RCU
30. I can use the web camera to communicate on the Internet	3.83	RCU
31. I can set up and use Multimedia projector	3.98	RCU
32. I can use a photocopier to copy files	4.44	FC
33. I can use a printer to print files	4.66	FC
Composite Mean	**4.22**	**FC**

Legend:

Range	Symbol	Descriptive Value
4.20-5.00	FC	I am fully competent with this application/operation.
3.40-4.19	RCU	I am regular and confident user of this application
2.60-3.39	OU	I have used this occasionally but need further training
1.80-2.59	DU	I do not use
1.00-1.79	NA	I am not aware of this application/operation

As revealed in table 2.4, BISU employee's level of competence as to use of peripherals, employees rated no. 33 "I can use a printer to print files" with the highest weighted mean of 4.6 with the qualitative description of fully competent with this application/operation. This means that the respondents are knowledgeable in using the printer. In contrast, items no. 30 "I can use the web camera to communicate on the internet" has the lowest rating of 3.83 described as regular and confident user of this application. The composite mean is equal to 4.22 with the qualitative description of fully competent which means that the respondents believed that their level of competence has in the highest level.

E. Employees level of competence towards ICT

Table 3. Summary of BISU employees level of competence towards ICT

Items	AWM	QD
1.Basic computer operations and issues	4.07	RCU
2.Use of Application software	4.02	RCU
3.Use if internet resources	4.38	FC
4.Use of peripheral ICT equipment	4.22	FC
COMPOSITE MEAN	**4.17**	**FC**

Legend:

Range	Symbol	Descriptive Value
4.20-5.00	FC	I am fully competent with this application/operation.
3.40-4.19	RCU	I am regular and confident user of this application
2.60-3.39	OU	I have used this occasionally but need further training
1.80-2.59	DU	I do not use
1.00-1.79	NA	I am not aware of this application/operation

As reflected in the Table 3, the BISU employee's level of competence towards ICT, the highest rating is the use of internet resources with the highest weighted mean of 4.38 with the qualitative description of fully competent in this application/operation. On the contrary, the lowest rating was the use of application software with a weighted mean of 4.02 which describes as they are regular and confident user of this application. The overall average obtained a weighted mean of 4.17, which means that the employees believed that the University has highest level of competence, flexible employees and fully competent user of ICT.

3. Attitudes towards ICT

Table 4 BISU Employees attitudes towards ICT

Items	WM	QD
1. ICT enhances employees learning	3.76	SA
2. Employees should include ICT	3.71	SA
3. Mail creates more information between employees and employers	3.56	SA
4. ICT provides better learning experiences	3.63	SA
5. I would work harder if I could use ICT	3.39	SA
6. I learn more from ICT than I do from books	3.41	SA
7. ICT is useful in dissemination of information	3.73	SA
8. ICT makes works more interesting	3.66	SA
9. ICT skill is worthwhile	3.61	SA
10. ICT gives opportunity to learn more	3.78	SA
11. I won't have anything to do with ICT	2.39	A
12. I have phobia for ICT equipment	2.24	DA
13. ICT can't address the needs of employees	2.51	A
Composite Mean	**3.34**	**SA**

Legend:

Range	Symbol	Descriptive Value
4.20-5.00	FC	I am fully competent with this application/operation.
3.40-4.19	RCU	I am regular and confident user of this application
2.60-3.39	OU	I have used this occasionally but need further training
1.80-2.59	DU	I do not use
1.00-1.79	NA	I am not aware of this application/operation

Table 4 presents the BISU employees attitudes towards ICT. Among the thirteen (13) items employees rated ten (10) items as strongly agree. The following are the top 3 items that obtained the descriptive value of strongly agree: item no. 10 "ICT gives opportunity to learn more" with the weighted mean of 3.78, item no.1 "ICT enhances employees learning", it obtained a weighted mean of 3.76, item no.7 "ICT is useful in dissemination of information" which obtained a weighted mean of 3.73. It means that employees have the favorable level of attitudes in facing today's ICT. The composite mean is equal to 3.34 which is described as strongly agree implies that they had a positive attitude towards ICT.

CONCLUSIONS

It is evident that respondents are fully competent in the use of internet resources and the use of peripheral ICT equipment. However, they are regular and confident user on the basic computer operations and issues and the use of application software. Thus, it is revealed in the study that as to level of competence the overall average point out that the employees are flexible and fully competent user of ICT. It indicated a higher level of mastery of equipment and software and also a greater willingness to acquire ICT competencies. As to attitudes of employees, it discloses that employees have the positive and high level attitude towards the use of ICT. However, awareness of computer security, copyright and the law, setting up, entering and updating of data base, setting messages and file in created folders, saving text and images from web pages and the use digital camera to capture images has the lowest average mean.

RECOMMENDATIONS

Based on the conclusion, it is recommended to conduct trainings for the non-teaching employees in order heighten their professional development related to ICT especially on spreadsheets, database management, file management, use of internet resources and awareness on computer security, copyright and related laws, saving text and images on web pages and the use of digital camera in capturing images. Outputs to be made must be relevant with the necessities of their jobs. Sample documents and files must be considered as basis for such outputs. Thus, a study will be conducted on the implication of the said trainings on the level of productivity of employees.

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TEACHERS' LEVEL OF COMPETENCE IN TEACHING MUSIC: BASIS FOR A TRAINING PROGRAM

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ABSTRACT

This study aimed to determine the teachers' level of competence in teaching music as basis for a training program. Normative survey method with the aid of the modified survey questionnaire is utilized to produce a general picture of research problem. The study was conducted at Candijay, Alicia, Mabini, Anda and Guindulman (CAMAG) districts and the respondents were the 97 grade 5 music teachers. The questionnaire focused on the profile of the teachers in terms of age, sex, highest educational attainment, teaching position, length of teaching experience, level of relevant trainings/seminars attended and teachers' level of competence in teaching music. The level of competence in teaching music was measured through the music learning competencies which were taken from Music Curriculum Guide, 2016. The data revealed that grade 5 music teachers can teach music learning competencies in moderately high level. On the relationship of teacher's profile and level of competence, it was found out that years of teaching experience and highest educational attainment were significant. However, it was discovered, that there is no significant relationship between age and teaching position and teachers' level of competence in teaching music. It showed in Appendix C-2 'Teachers' Level of Competence in Teaching Music that among thirty – one learning competencies, there were only seven competencies wherein teachers could teach in high level. Unfortunately, no one could teach in very high level, to cover up the level of competence a proposed training program for the enhancement of teachers' level of competence in teaching music is a great help of the Department of Education to teachers especially beginners to be more competent and excellent on their chosen field. It is also a great help to be updated on any new trend in teaching music.

Keywords: Learning competencies, Level of Competence, Music, Teachers, and training

INTRODUCTION

Universal language that embodies one of the highest forms of creativity is called music. To offer high quality music education engaging and inspiring pupils to develop a love of music and their talent as musicians, and so increase their self -confidence, creativity and sense of achievement should be offered. As pupils progress, they should develop a critical engagement with music, allowing them to compose and listen with discrimination to the best in the musical canon. (Dylan, William 2018). The important condition for a successful implementation of national education policy is professional pedagogical performance. Creative and understanding the evolving process of today – a competent music teacher is competitive both in the domestic employment market and abroad. Music as art is creative in its essence. The aim of this research is related to raising awareness of productive activity in the improvement of music teachers' competency. Teacher professional learning is of increasing interest as one way to support the increasingly complex skills students need to learn in preparation for further education and work in the 21st century. Deep mastery of challenging content, critical thinking, complex problem-solving, effective communication and collaboration, and self-direction are the student's competencies that should be developed in teaching. In turn, effective professional development (PD) is needed to help teachers learn and refine the pedagogies required to teach these skills (Koca, Jerihban 2017).

The important of the music teachers' role in life of the learner should not be taken for granted. The music teacher is the director of learning, the decision-maker and innovator wherein the teacher

contributes to the educational manpower and become visible proof in the brilliant achievement of musical groups – choral or instrumental.

From this perspective, the researcher is prompted to assess the status of Teacher's Level of Competence in Teaching Music of 97 grade 5 music teachers in the districts of Candijay, Alicia Mabini, Anda and Guindulman (CAMAG) in the S.Y. 2019 – 2020.

RELATED LITERATURE

The significant element that affects the quality of teaching and education is teacher's level of competence. This study embodied by the theory of Vygotsky (1978) , theory of socialization established that the adult primarily the parent and teacher is the primarily influence on the child's socialization process. The adult not only transmits music to the child, but also participates in the child's discovery and manipulation of music to be acquired. In another theory, Barbie and Swassing (1979) , theory of learning modalities submits that learner process information most efficiently through one of the sensory channels: visual,auditory,tactile/kinaesthetic. Learning modalities can be applied to music instructional approaches. In addition , Dewey (1938) , learning by doing addresses learning should be revelant and practical learning tasks requires active participation in hands – on opportunities and must connect content to student's life. These theories support this study that teacher's level of competence is important in music education .

The said theory of learning is legally supported by the provision of Republic Act 4723 known as Music Law gives the importance to the teaching of music in the curricula of the elementary and secondary schools. It is also empowered by the Philippine Constitution of 1987 specifically states in Sec. 2 and 10 of the Article XIV and in Republic Act 10533, otherwise known as the Enhanced Basic Education Act of 2013 that state shall establish, maintain and support a complete, adequate, and integrated system of education relevant to the needs of the people, the country and society-at-large. Generally , this study is also supported by Bachelor of Culture and Arts Education (BCAE,2016) explains that Culture and Arts Education is a field of specialization engaged (i) in clarifying the conceptual foundations of value-laden creative expressions such as visual arts, music, theater, and dance.

It means understanding music is a profound influence in the human life .As a researcher, I believe it really happen to every individual consciously or unconsciously to get involve in music , it can be through active listening , playing or creating. Huber and Camp (2013), strikes that it is sad to hear the fact that about 20% of music lessons in primary schools are performed by teachers who are not qualified for music teaching.

In the literature, "teacher competence" can refer to everything from training procedures, characteristics of teachers, behavior in the classroom, and effects produced by teachers. Other terms such as "effectiveness" and performance" have an equal number of uses (Brand, Manny 2009).Furthermore expressive performance and music perception form a feedback loop in which expressive performance actions (like a slowing down at the end of a phrase) are informed by perceptual constraints or expectations, and the perception of certain musical constructs (like grouping structure) is informed by the way the music is performed (Chew, 2016).

In addition, Hocking, 2009 pointed out that more practical activities in music and musical level of the student population in general should also be added to it where the students will evaluate themselves as equally competent or incompetent, colleagues. However, the need for more practical training, primarily playing instruments and singing were emphasized. Musical competences of primary education teachers cannot be determined otherwise then in relation to the course plan and programme for music courses in the first three grades of primary school. This means that it will be enough for children in primary education to sing, to listen to well selected music, and to play with a musical background in various ways. Teaching Methods for Teaching Music is the key course for training future teachers to teach music. However, adapting to the European framework in education, without thinking about the approaches of United Nation Educational, Scientific and Cultural Organization (UNESCO), assumed that there was no type of exclusion, neither by subjects nor by profiles as we find a clear void regarding the competencies that a professional of music must acquire, in their training and for their employability. Not only in the strictest areas such as the Conservatories, but also in elementary schools and at the University. Our work required the help of professionals from music schools, because current laws do not refer to work in the area of competences, except in some decrees where professional competences are mentioned, or in other cases,

where reference is simply made to integrate the basic skills of primary schools. The results were a proposal of basic Competences in music, which could include both conservatories and music schools, regardless of the instrumental specialty, which is a first step to establish a criterion that unifies the criteria for this group of teachers.

Competency-based learning: Music education, the great forgotten' by Vernia Carrasco and Ana Mercedes (2018), stated that it is necessary a specific training for music teachers, in terms of didactic programming by competences, according to their profile as a specialist and broadening their vision to be able to meet the European framework in educational matters. We also verified that although the rubrics of evaluation are known, there are very few teachers who apply them, some recognizing that they follow the evaluation system by traditional exam, or taking into account what their didactic program dictates.

In addition, Conservatories Professionals' for Music Schools says training is required, it is different from the educational areas where the key competences are already implemented and by the opinions of the specialists, therefore, it should be applied in Education and Musical formation.

In the investigation of Hourigan, 2007 as cited by Jones, 2014 about two pre service music teachers provided assistance to a student with disabilities in an instrumental music methods class. While the pre-service teachers were initially apprehensive due to lack of experience, they gained confidence as they became more experienced, learning to adapt lessons, reevaluate their methods, and be creative in finding ways to accommodate the student. He also investigated the perceptions of pre-service music teachers enrolled in a fieldwork experience. In the study participants received an orientation on teaching students with disabilities, followed by an 8-week field experience in which participants kept journals, participated in interviews, and wrote a case paper. Participants generalized that the orientation is helpful in noting unfamiliarity with the special education system.While, Demir (2015) investigated about music teachers' teaching styles by asking them about their own teaching styles; however, these results were dependent on candidate teachers' perceptions to evaluate mentors' teaching style.

Koca, Jerihban (2017) attempted to identify and evaluate the specific area and learning - teaching competencies of music teacher candidates taking pedagogical formation training. The findings of the study concluded, music teacher candidates perceive themselves qualified in terms of planning and organization, theoretical and practical knowledge and skills, music culture, cooperation between school, family and society and between different disciplines, and professional development, whereas they consider themselves unqualified in terms of sub-dimensions of certain specific field competencies such as identification of the purposes of assessment and evaluation practices related to music teaching, and assessment and evaluation of musical development of students.

OBJECTIVES

The specific objectives of the study are:

1. What is the profile of the teacher respondents in terms of:
   1.1 Age;
   1.2 Sex;
   1.3 Highest Educational Attainment;
   1.4 Teaching Position;
   1.5 Length of Teaching Experience;
   1.6 Level of Relevant Trainings/Seminars/ Workshops Attended?
2. What is the level of competence in teaching music of Grade 5 music teachers in CAMAG?
3. Is there a significant relationship between the profile of the grade 5 music teachers and their level of competence in teaching music?
4. Based on findings, what training program may be proposed to enhance Teachers' Level of Competence in teaching Music?

RESEARCH METHODOLOGY

Design

To achieve the purpose of this research, the researcher employed the normative survey-method with the aid of the modified survey questionnaire as a tool of gathering data for the attainment of the purpose of the study.

Environment and Respondents

The study was conducted in public elementary schools of the Eastern part of Bohol particularly in five district namely: Candijay , Alicia, Mabini ,Anda and Guindulman (CAMAG) .There were 97 grade 5 music teacher respondents of the study.

Instrument / Tool

Through consultation and extensive referral to different aspects in relation to the study, the researcher used a questionnaire for the respondents profile answerable by the teachers to supply information of the study and for the level of competence in teaching Music .Proponent of the Questionnaire is Donald K. Taebel on his study "Public School Music Teachers' Perceptions of the Effect of Certain Competencies on Pupil Learning' at Pennsylvania State University on March 4, 2016.

On questionnaire for the level of competence in teaching Music. The qualitative scales used in reflecting the respondents' level of judgment:

Weight	Level of Competence
4	Very High
3	High
2	Moderately High
1	Low

On questionnaire for the teacher's profile. An instrument used to gather the personal information. It covers age, sex, teaching position, highest educational attainment and length of service as Music teachers and level of seminars/training attended relevant to Music.

Data Gathering Procedure

The researcher asked permission from the Schools Division Superintendent of Bohol Division through a letter noted by the Dean of the College of Advanced Studies (CAdS) to conduct this study. Upon approval of the superintendent, the researcher also requested permission from the Schools District Supervisor and school heads. The researcher distributed the questionnaires to 97 grade 5 music teachers in Candijay,Anda,Mabini,Alicia and Guindulman ,responded on the teachers' profile, and level of competence in teaching music.

Data Analysis

To determine the demographic profile of the respondents, average value of responses to the teachers' level of competence in teaching music and significant relationship between the profile of the respondents and teachers' level of competence in teaching music, the researcher used percentage, weighted mean and chi –square test of independence.

The Findings

Table 1 Profile of the Respondents
N = 97

1.1 Age	Frequency	Percentage
Below 25 years old	3	3.09%
25- 35 years old	46	47.42%
36-45 years old	34	35.05%
46 – 55 years old	11	11.34%
56 years old and above	3	3.09%
Total	**97**	**100%**
1.2 Sex		
Male	20	20.62%
Female	77	79.38%
Total	**97**	100%
1.3 Highest Educational Attainment		
Bachelor's Degree	36	37.11%
Bachelor's Degree with Masteral Units	39	41.49%
Bachelor's Degree with CAR in Masteral	21	21.65%
Graduated in Master's Degree	1	1.06%
With PhD Units	0	
With CAR in PhD	0	
Graduated PhD	0	
Total	**97**	**100%**
1.4 Teaching Position		
Teacher 1	45	46.39%
Teacher 3	50	51.55%
Master Teacher 1	2	2.06%
Master Teacher 2	0	0%
Total	97	100%
1.5 Length of Teaching Service		
Less than 1 year	3	3.09%
1 – 5 years	35	36.08%
6 – 10 years	13	13.40%
11 – 15 years	23	23.71%
16 – 20 years	13	13. 40 %
21 – 25 years	8	8.25%
26-30 years	0	0%
31 years and above	2	2.06%
Total	**97**	**100%**
1.6 Level of Seminars / Training Attended Related to Music		
School Level (In service Training in Music)	32	32.99%
District Level (In service Training in Music)	43	44.33%
Division Level (Training in Music)	3	3.09%
Regional Training in Music	1	1.03%
National Training in Music	0	0%
Never Attended Training in Music at any level	18	18.56%
Total	**97**	**100%**

Table 1 presents the profile of the teacher-respondents in terms of age, sex, highest educational attainment, teaching experience, teaching position, length of service as music teacher and relevant trainings and seminars attended related to Music topics. As to age, it is revealed that 25 to 35 years old ranked 1st with the highest frequency of 46 or (47.42 %) while below 25 years old and 56 years old - above got the lowest frequency of 3

or (3.09 %). The data presents that in CAMAG districts; teacher-respondents are still young and able to teach and learn different methodology in Music and could impart knowledge to their pupils.

In terms of sex, the female respondents dominate the male respondents with the frequency of 77 or (79.38 %).

Teacher is a fundamental part of the teaching and learning process. In turn, effective professional development is needed to help teachers learn and refine pedagogies required to teach skills (Koca, Jerihban, 2017). In the same table, it shows that the highest educational attainment of the respondents is Bachelor's degree with Masteral Units as it got the highest frequency of 39 or (41.49%) but it is notable that none of the respondents has the units in doctoral's degree.

In terms of teaching position, there is little gap between teacher 1 and teacher 3. It can be gleaned that majority of the respondents were teacher 3 with a frequency of 50 or (51.55 %). Close to it was teacher 1 with a frequency of 45 or (46.39 %). But sad to note that there were only 2 teacher – respondents or (2.06 %) who are in master teacher 1 teaching position.

As to teaching experience, most of the teacher - respondents had 1–5 years of experienced in teaching with a frequency of thirty – five or (36.08 %). The data also reveals that there is equal frequency of 13 (13.40 %), teacher- respondents who are in 6 to 10 and 16 to 20 years' experience in teaching. This implies that music teachers were neophyte in their field that is why it is notable that promotion is not so observable. Longueira (2011) says music education is developed in three areas professional training, teacher training and music education training. It means understanding in music requires different training for the development of teacher's level of competence in teaching.

Table 2. Teachers' Level of Competence in Teaching Music
N=97

Learning Competencies In terms of :	**Weighted Mean**	**Verbal Interpretation**
First Quarter / Rhythmn	2.5	High
Second Quarter / Melody	2.16	Moderately High
Third Quarter / Form	2.14	Moderately High
Fourth Quarter / Dynamics / Tempo Texture / Harmony	2.13	Moderately High
Average Weighted Mean	**2.23**	**Moderately High**

Here in table 2, it evaluates the teacher's level of competence in teaching music. The data revealed that CAMAG teacher-respondents could teach the first quarter topics in high level but second, third and fourth quarter music topics teacher-respondents could teach it in moderately high level.

The data manifests that teacher- respondent are in the moderately high level in teaching music. From this, we can infer that teachers need more practical activities, trainings and seminars relevant to music as refreshments for them to reach the very high level. In connection with this, the important of teachers possessing a level of pedagogical competence to effectively instruct and manage students (Mustafa, 2013).

Table 3 illustrates the test of the relationship between the respondents' level of competence in teaching music and their demographic profile in terms of age, highest educational attainment, teaching position, and length of teaching experience.

Table 3. Relationship Between the Respondents' Profile and the Level of Competence in Teaching Music
N = 97

Profile In terms of :	**X^2**	**df**	**p-value**	**Interpretation**	**Decision**
Age	24.48	15	0.057	Not Significant	Failed to Reject Ho
Highest Educational Attainment	19.50	9	0.021	Significant	Reject Ho
Teaching Position	10.68	6	0.099	Not Significant	Failed to Reject Ho
Length Teaching Experience	38.64	18	0.003	Significant	Reject Ho

**Correlation is significant at 0.05 level (2-tailed)*

The result depicted that there is a significant relationship between the level of competence in teaching music and their demographic profile in terms of highest educational attainment and length of teaching experience since the computed chi-square value of 19.50 at 9 degrees of freedom and 38.64 at 18 degrees of freedom, respectively with the corresponding p-value of 0.021 and 0.003 which are lesser than 0.05 level of significance, thus the null hypothesis is rejected. This signifies that highest educational attainment and length of teaching experience contributed much on the teaching level of competence. Additionally, teachers with high pedagogical competence levels have

achieved excellent academic results and have also taught and led pupils to be well- rounded.

Experienced teachers – more than beginners – have been more reflective, talkative and concerned with the overall classroom climate and instructional strategies use to reach pupils. (Krull , Oras & Sisalc, 2007).

According to Great Schools (2014), teachers with more years of experience and highest educational attainment have provided stability of a school and mentored new teachers, they are known to possess a deeper understanding about educational practices, exhibit high levels of self-monitoring skills, examine problems and identify solutions quickly, fairly and accurately.

Instructionally, teachers with more years of experience have been more likely to have an elaborate lesson plan for lessons, utilize pupil's questions and responses for classroom discussion and learning and employ flexibility and improvisation during lesson (Clearly and Groer, 1994 cited by Jones, 2015).

This is what also implies on the study of The Relationship between Elementary Teacher's Years of Experience and Their Perceived Pedagogical Competence by Jones (2015), that teachers with more teaching experience were more instructionally effective and knowledgeable about educational practices.

Beginning teachers have utilized instruction that has been mostly dependent on telling and explaining because they have not yet developed their pedagogical content knowledge. To have been considered a master in the profession, teachers should have found providing new opportunities for learners to connects to their background experiences, or schema, which should be made it easier to integrate new content knowledge with previous knowledge (Toh , Ho, Chew & Riley , 2003).

However, there is no significant relationship between the respondents' level of competence in teaching music and their demographic profile in terms of age and teaching position since the computed chi-square value of 24.48 at 15 degrees of freedom and 10.68 at 6 degrees of freedom, respectively with the corresponding p-value of 0.057 and 0.099 which are greater than 0.05 level of significance, thus failed to reject the null hypothesis. This implies that age and teaching position do not play a vital role and impact in the teaching level of competence. Thus, the improvement of someone's age will bring to development and improvement in emotional competence not in his teaching competence (Sala, 2002).

The most important factor contributing to pupil's educational successes has been an effective teacher (Bright, 2012). Moreover, teaching position does not give great effect how the teacher delivers his competency in teaching.

Aspects beyond teacher knowledge such as position, beliefs and motivation have been important in determining teacher success but does not found as important in his aspects of competence (Kunter et al, 2013).

CONCLUSIONS

At the onset of the study, the researcher arrived the following conclusions:

1. It was found out that among the thirty –one music learning competencies the Grade 5 music teachers could teach only seven of it in high level, unfortunately, no one could teach in very high level.
2. In overall teacher – respondents could teach the learning competencies from first to fourth quarter in moderately high level.
3. One of the aspects affect the teachers' level of competence is length of teaching experience. Therefore, training program is important to be given along the teacher's service.

RECOMMENDATIONS

Based upon the findings and conclusions of this research, the following recommendations were drawn:

1. Teachers handling music should continually upgrade their professional standard, musicianship and teaching skills through training, workshops/ seminars.
2. Therefore ,the researcher recommended for a training program to enhance the teacher's level of competence in teaching music, since years of experience has significant relationship to teacher's level of competence ,it is important that along the experience there is training integrated as refreshment to the new trend and procedure in teaching music. The training program to be used in conducting the in service trainings should focus on the total development on fundamentals of music..
3. Head of schools, administrators and supervisors allocate funds for music instruments which can be used as instructional materials in music.

4. Future researchers in the field of education may use the findings as basis for future research or conduct related-studies to improve teachers' level of competence in teaching music.

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PLAY-BASED INSTRUCTION IN RELATION TO THE LEVEL OF THE PUPILS' LITERACY AND NUMERACY SKILLS ACHIEVEMENT

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ABSTRACT

The primary purpose of this study was to evaluate the effectiveness of play-based instruction in relation to the level of kindergarten pupils' performance in literacy and numeracy skills in Anda District, Bohol, the researcher used the descriptive survey method with the aid of modified questionnaire under the functions, duties and responsibilities of the kindergarten teachers and parents. It was conducted in Anda District. The participants in this study were the kindergarten teachers and kindergarten pupils' parents in the said district and were composed of fourteen (14) female teacher respondents, while there were a total of fifty (50) parent respondents consisted of eleven (11) males and thirty-nine (39) females. Based on the result, play-based learning as to literacy skills has a significant relationship to the Kindergarten Pupils. It signifies that play is adequate to develop children's literacy skills. However, it was determined that there is no significant relationship between play-based learning and kindergarten pupils' performance in numeracy skills since the computed Spearman's rho were smaller that the p-value at 0.05. Thus, the null hypothesis is accepted. Consequently, play-based instruction can influence to the literacy skills of the pupils, but, it has a slight effect and can still improve on the kindergarten pupils' level of performance in numeracy skills. Meanwhile, the kindergarten pupil's performance in numeracy and literacy skills were belonged to consistent level. It is recommended that teachers should teach play skills to children who have difficulty entering into a play scenario; the Learning Action Cell should be conducted regularly for kindergarten teachers to have the chance for sharing and suggesting best practices of play-based instruction; teachers must look for every available opportunity to increase student learning like developing a conducive classroom environment; and the need to consider of attending the seminar- training to meet those demands and standards of quality education as prescribed by the DepEd.

Keywords: Play-based Instruction, Kindergarten Pupils, Literacy Skills, Numeracy Skills

INTRODUCTION

Early childhood education has progressed throughout the years. Many influential scholars including Piaget, Vygotsky, Dewey, Froebel, and Rousseau, have developed philosophies about early childhood education. Their thoughts are explored and utilized in classrooms today and impact the philosophies of many early childhood educators.

Governments around the world are concerned about the level of literacy and numeracy of young children, particularly those from the hardest-to-reach families. Early childhood professionals have traditionally concentrated their literacy and numeracy efforts on programming for children's spoken development and focused on the development of number. For instance, we often plan to help children learn number by doing number rhymes with toddlers. We may plan to develop literacy through talking to infants while changing their nappies. However, more recent research indicates that early understandings of literacy and numeracy are best supported when early childhood professionals in order to have a deeper knowledge of literacy and numeracy; deliberately plan for activities which support beginning development in literacy and numeracy.

Most children come to primary school with rich mathematical understanding and knowledge which teachers can help to build on and develop. In this recently published plan, the Department of Education and Skills defines Numeracy as "the capacity, confidence and disposition to use mathe-

matics to meet the demands of learning, school, home, work, community and civic life." (D.E.S. 2010, p.9) Aistear, the Early Childhood Curriculum Framework defines numeracy as 'developing an understanding of numbers and mathematical concepts (NCCA, 2009). There are six principles of how children learn and develop: 'holistic learning and development, active learning, play and hands-on experiences, relevant and meaningful experiences, communication and language, and the learning environment' and regards play 'as a key process underpinning the learning of young children and as a methodology for facilitating learning' (NCCA 2009).

However, the National Quality Framework for Early Childhood Education also highlights the importance of play in young children's learning 'Play is an important medium through which the child interacts with, explores and makes sense of the world around her/him. It provides an important context and opportunity to enhance and optimize quality early childhood experiences (CECDE, 2006). The Constructivism and Guided Discovery methods advocated in the Primary School Mathematics curriculum support these principles (DES 1999).

OBJECTIVES OF THE STUDY

The purpose of this study is to identify the effectiveness of play-based instruction on the achievement of kindergarten pupils' literacy and numeracy skills in the district of Anda, Bohol during the School Year 2018- 2019.

Specifically, it aims to answer the following questions:

1. What is the profile of the respondents in terms of:
   1.1 Parents
      1.1.1 Age;
      1.1.2 Sex; and
      1.1.3 Highest educational Attainment?
   1.2. Teachers
      1.2.1 Age;
      1.2.2 Sex;
      1.2.3 Highest educational attainment;
      1.2.4 Length of teaching experience; and
      1.2.5 Relevant trainings/ seminars attended?
2. What is the perception of the respondents on the play-based learning of kindergarten pupils?
3. What is the level of performance of the kindergarten pupils in terms of:
   3.1 Literacy; and
   3.2 Numeracy skills?
4. Is there a significant relationship between play-based learning and kindergarten pupils' level of performance in terms of:
   4.1 Literacy skills;
   4.2 Numeracy skills?
5. Is there a significant difference between the respondents' perception on the play-based learning?

RESEARCH METHODOLOGY

Design

The researchers used the descriptive survey method.

Instruments

The researcher used for this study is a modified questionnaire based on literacy and numeracy aspects of play-based instruction with twenty-five (25) items.

Another tool is a modified questionnaire under the instrument of early childhood checklist used by the Department of Education for kindergarten pupils' performance specifically on the literacy and numeracy skills

Environment and Participants

Anda district in the province of Bohol, Philippines is the site of this study. There were a total of sixteen (16) public elementary schools offering kindergarten subjected in this study. Meanwhile, fourteen (14) teachers and fifty (50) selected parents for a total of sixty-four (64) respondents participated in the study.

The respondents go through the proper procedure of securing approval. Questionnaires were distributed personally to the respondents. Data were gathered; it was then tallied, tabulated, collated and were subjected to descriptive and inferential statistics for the purposes of analysis and interpretation in accord to the specific problems of the study. Thus, adding empirical data.

Statistical Treatments

To determine the efficiency of classroom – based management in reducing student's stress, the Percentage, Weighted Mean, T- test for independent samples and Spearman Rank Correlation Coefficient were used.

LITERATURE BACKGROUND

Early childhood education is incredibly important to a child's future academic and professional success, which is why many education advocates point to preschool as a crucial point of entry that gives children the means to succeed later in life.

Both child-initiated and teacher-supported learning are being associated in play-based approach. The objective to magnify the thinking skills of the children to higher levels, the teacher encourages the children to have leanings and inquiries through interactions (Morrissey, Robertson, & Rouse, 2018).

Actually, play has something to do to make a child ready. A large body of research connects school readiness to an array of long-term outcomes. Research shows that cognitive and social-emotional readiness skills predict children's ability to smoothly transition into and through elementary school (Pianta, Cox, & Snow, 2007). Children who demonstrate proficiency across multiple readiness dimensions are more likely to succeed academically in first grade than are those who are competent in only one or two dimensions (Hair, Halle, Terry-Humen, Lavelle, & Calkins, 2006) and children's patterns of readiness just prior to kindergarten, particularly possessing social competence or advanced memory skills, predict fifth grade achievement (Sabol & Pianta, 2012).

Piaget (1959) in his theory of cognitive development presumes play is a main concept requisite for cognitive growth. The constructivist paradigm gives the theoretical framework for education practice. In this practice children develop concepts through vigorous collaboration with the environment, and create their own understanding as they explore their surroundings (Kirova & Bhargava, 2002).

Cognitive learning theory implies that the different processes concerning learning can be explained by analyzing the mental processes first. It posits that with effective cognitive processes, learning is easier and new information can be stored in the memory for a long time. On the other hand, ineffective cognitive processes result to learning difficulties that can be seen anytime during the lifetime of an individual.

However, Vygotsky (1978) in his constructivist theory highlights the role of the active involvement of teachers (Pange & Kontozisis, 2001). Socio-cultural theorists believe that the attitudes of parents, teachers and society in general have an impact on the children's attitudes towards play (Isenberg, 2002) and on the conditions for play such as time and space.

Humanism approach (Rogers, 1960) focuses on the human freedom, dignity, and potential. A central assumption of humanism, according to Huitt (2001), people act with intentionality and values. This is in contrast to the behaviorist notion of operant conditioning which argues that all behavior is the result of the application of consequences and the cognitive psychologist belief that the discovering knowledge or constructing meaning is central to learning.

In the Philippines, it is now also mandatory that children must complete one-year of preschool Kindergarten education before enrolling in elementary school. DepEd believes Kindergarten is a transition stage between informal literacy and formal literacy (grade 1-12). This is the period of greatest growth and development, when the brain develops most rapidly, almost at its fullest. It is a period when walking, talking, self- esteem, vision of the world and moral foundations are established. In public schools, children at this stage should be immersed with activities, games, and plays to naturally acquire the skills/competencies appropriate for their holistic development as emergent literates and be ready for formal school.

The Education Act of 1982 or Batas Pambansa Blg. 232, an Act providing for the establishment and maintenance of an integrated system of education. This Act shall apply to and govern both formal and non-formal systems in public and private schools in all levels of the entire educational system. It is further declared in Section 3, that the policy of the State is to establish and maintain a complete, adequate and integrated system of education relevant to the goals of national development.

The Kindergarten Education Act under the Republic Act No. 10157, this is in consonance with the Millennium Development Goals on achieving Education for All (EFA) by the year 2015. Kindergarten education is vital to the academic and technical development of the Filipino child for it is the period when the young mind's absorptive capacity for learning is at its sharpest. It is also the policy of the State to make education learner-oriented and responsive to the needs, cognitive and cultural capacity, the circumstances and diversity of learners, schools and communities through the appropriate languages of teaching and learning.

In relation to the said Act, the Department of Education (DepEd) issued the DO 47, S. 2016 or

the Omnibus Policy on Kindergarten Education. DepEd issues the enclosed Omnibus Policy on Kindergarten Education for School Year 2016-2017, and the subsequent school years thereafter.

This order is therefore sets the basic standards for an efficient and effective Kindergarten Education Program implementation for both public and private schools nationwide, and shall serve as basis for accreditation and/or recognition of those intending to put early learning centers; provides a comprehensive Kindergarten Education policy covering the following different components of implementing Kindergarten Education Program: curriculum; instruction, such as teaching methodologies and strategies; assessment; learning resources and instructional materials; learning space and environment.

FINDINGS

This section covers the presentation, analysis and interpretation of the gathered data. These were tallied and presented in tabulated and textual form, analyzed through the use of statistical formula and interpreted in the light of the problems posted by this study.

Profile of the Teacher-Respondents

Based on the profile of the teacher respondents which contain their age, sex, and highest educational attainment, length of teaching experience and relevant trainings and seminars attended. There were eight (8) or 57.14% at the age bracket of 31- 35 years old; followed by two (2) or 14.29% respondents at age bracket of 26-30 years old; the age bracket of 21-25 years old with one (1) or 7.14% respondent; while there was one (1) or 7.14% respondent at the age of 36-40 years old; one (1) or 7.14% respondent at the age of 41-45 years old; and one (1) respondent at the age of 46 -50 years old was at the lowest rank.

As to the sex of the respondents, there are fourteen (14) or 100% female teacher respondents respectively. This is very evident in all schools in Anda District that females dominated on the population of the teaching profession. With regards to teacher respondents' highest educational attainment, seven (7) or 50% respondents were Bachelor's Degree Holders, and seven (7) or 50% respondents were Bachelor's Degree Holders with MA Units.

Yet, fourteen (14) or 100% respondents had attended relevant seminars and trainings. Nevertheless, these respondents were trained to handle kindergarten pupils. This indicates that the respondents worked out in the field of qualification since teaching qualification is one of the most important in academic and professional degrees that that enables a person to become an effective teacher. As to their teaching experience, the bracket 1-5 years got twelve (8) was the highest frequency, while there were six (6) frequency for 6-10 years. Most of the teachers in Anda district composed of young, eager to learn and individual that holds personality of wanting to have something to prove.

Profile of the Parent-Respondents

In the profile of the parent-respondents which include their age, sex, and highest educational attainment. There were eight (8) or 57.14% at the age bracket of 31- 35 years old; followed by two (2) or 14.29% respondents at age bracket of 26-30 years old; the age bracket of 21-25 years old with one (1) or 7.14% respondent; while there was one (1) or 7.14% respondent at the age of 36-40 years old; one (1) or 7.14% respondent at the age of 41-45 years old; and one (1) respondent at the age of 46 -50 years old was at the lowest rank. As to the respondents' sex, majority of them were females with thirty- nine (39) or 78% for parent respondents. The lowest percentage was the male respondents with eleven (11) or 22%. However, in terms of parent respondents' highest educational attainment, there were twenty-three (23) or 46% respondents were high school level or high school graduates; while eighteen (18) or 36% respondents were college level or college graduates; then six (6) or 12% were elementary level or elementary graduates; and three (3) or 6% respondents earned Bachelor's Degree with MA Units.

Respondents Perception on Play-based Instruction

On the parent and teacher respondents' perceptions on play-based learning, it was assessed that the highest rank in this category is the statement number 14 "Literacy-related play helps children engage in a writing activity and makes them aware that writing is a representation of oral language" answered by the parent respondents with a weighted mean of 3.52 and interpreted as Strongly Agree while for the teacher respondents are the statements number 10 "In play, children demonstrate noticing environmental print and they will be able to learn to recognize their own names.", number 15 "Numeracy- related play helps the children to describe objects based on attributes and properties.", and number 16 "Numeracy-

related play helps the children to identify sequence of events." with a weighted mean 3.5 and illustrated as Strongly Agree.

The lowest rank for this category for the parent respondents was the statement number 12 "Children's learn to have application of their background knowledge or prior experiences within literacy-related play" with a weighted mean of 2.9 which means Agree while for the teacher respondents is the statement number 20 "Numeracy-related play helps the children develop mathematical concept such as short, long, fat, thin, etc." with a weighted mean 2.78 or described as Agree.

This means that parent and teacher respondents believed that children develop literacy skills from hearing language spoken around them, that children develop literacy skills through different types of settings such as the print they see around them and hearing stories read aloud to during play children participate in reading and writing experiences that develop the literacy skills they need for formal reading instruction. Hence, Play is a social phenomenon that children truly enjoy. Literacy skills appear to develop naturally within the context of this highly social interaction.

On the other side, they believed also that young children are exposed to a wide range of mathematical concepts and skills in their day to day lives. Mathematical learning does not only occur at a given time of the day or in one area of a classroom. It can occur at any time during the day and in any area of the indoor or outdoor environment from everyday routines to rhymes and songs, to play centers and the school yard.

Play does not guarantee mathematical development, but it offers rich possibilities. Significant benefits are more likely when teachers follow up by engaging children in reflecting on and representing the mathematical ideas that have emerged in their play.

Children who demonstrate proficiency across multiple readiness dimensions are more likely to succeed academically in first grade than are those who are competent in only one or two dimensions (Hair, Halle, Terry-Humen, Lavelle, & Calkins, 2006).

These children's patterns of readiness just prior to kindergarten, particularly possessing social competence or advanced memory skills, predict fifth grade achievement (Sabol & Pianta, 2012).

Thus, it is important that the child is ready with prior knowledge and basic skills upon enrolling the school. Physically active play allows children to test and develop all types of motor skills. It promotes significant health and well-being benefits.

Kindergarten Pupils' Level of Performance in terms of Literacy Skills

It was found out that Consistent Level got the highest frequency of three hundred four (304) or 96.51% of out three hundred fifteen (315) pupils, while the Developing Level got the frequency of eleven (11) or 3. 49% was the lowest one.

It implies that implementing play-based instruction in the curriculum is developmentally appropriate for young children for it is a big help to enable them develop their literacy skills. It further explains that children learn more complex knowledge through play.

A study shows that when children play, they are working "a head taller [than themselves]. Play contains all developmental tendencies in a condensed form and is itself a major source of development"2 (p. 102). This creates an ideal place for literacy learning. The more children play, the more time there is for talk. Thus, play is central to children's learning and needs to take a principal place in our pedagogy and our classroom set-up. The busy hum of a classroom is literacy learning in action.

Kindergarten Pupils' Level of Performance in terms of Numeracy Skills

It was determined that the highest frequency of two hundred ninety-eight (298) or 94.60% belonged to Consistent Level, while the lowest frequency which was seventeen (17) or 5.40% belonged to Developing Level. This means that majority of the kindergarten pupils were doing well in the class and few of them were still progressing and needs more practice.

Relationship Between Play-Based Instruction and Kindergarten Pupils' Performance

It was widely viewed that play-based instruction as to literacy skills has a significant relationship to the kindergarten pupils. It indicates that play-based learning has something to do with the performance level of the kindergarten pupils. Yet, play-based learning impacts the development of children's literacy skills.

However, there is no significant relationship on play-based instruction as to numeracy skills. To whatever extent, numeracy is a skill for life, learning and work. Having well-developed numeracy skills allows young people to be more confident in social settings and enhances enjoyment in a large number of leisure activities. For

these and many other reasons, all teachers have important parts to play in enhancing the numeracy skills of all children and young people. According to Montessori (as cited by Mooney, 2000), children learn best by doing, and through repetition. In order to facilitate the development of competence and responsibility, Montessori believed that teachers should include ample amounts of free time for children to structure their own work and play. Facilitation and constant monitoring of teachers play a big role in developing skills of the pupils.

Difference Between the Respondents' perception on the Play-based Instruction

On the respondents' responses pertaining to the difference between their perception on the play-based instruction to the kindergarten pupils as reflected in table 5, It was observed that there is no significant difference on the kindergarten pupils' performance in literacy and numeracy skills since the computed Spearman's rho were smaller that the p-value at 0.05. Thus, the null hypothesis is accepted. It means that the respondents have comparable perception on play-based learning. Its aim is to achieve consistent learning through the use play-based as learning strategy.

It is believed that the attitudes of parents, teachers and society in general have an impact on the children's attitudes towards play (Isenberg, 2002) and on the conditions for play such as time and space.

According to Lee (1921) children do not play because they are young; they are young in order that they may play. The value of play lies in the opportunities it provides for sensory exploration, which in turn act as the foundation for intellectual development (Moyles, 1989). Direct instruction provides information to preschool children, while play is the practice and application of that knowledge (Horn, Nourt, Scales, & Alward, 2007).

However, as stated in Republic Act 10157, or "The Kindergarten Education Act" Teachers, parents, caregivers, adults should therefore be guided to facilitate explorations of our young learners in an engaging, creative, and child-centered curriculum that is developmentally appropriate and which immerses them in meaningful experiences. Provision of varied play-based activities leads them to becoming emergent literates and helps them to naturally acquire the competencies to develop holistically.

On the other hand, play-based instruction holds great value in developing kindergarten pupils' literacy and numeracy skills. The context of play, allows for this to happen in a natural way and learning is amplified as it is enjoyable and relevant to the children's interests.

CONCLUSIONS

Based on the thorough analysis and findings of the study, Play-based instruction can influence to the literacy skills of the pupils, however, it has a slight effect and can still improve on the kindergarten pupils' level of performance in numeracy skills. Meanwhile, the kindergarten pupil's performance in numeracy and literacy skills were belonged to consistent level. Therefore, this learning method is important and helpful in children's learning.

RECOMMENDATION

Based on the conclusions mentioned, the following recommendations are offered.

1. Play-based is found to be effective method to develop the literacy and numeracy skills of kindergarten pupils, therefore, teachers should teach play skills to children who have difficulty entering into a play scenario.
2. The Learning Action Cell should be conducted regularly for kindergarten teachers to have the chance for sharing and suggesting best practices of play-based instruction.
3. Teachers must look for every available opportunity to increase student learning like developing a conducive classroom environment.
4. Teachers also need to consider of attending the seminar- training to meet those demands and standards of quality education as prescribed by the DepEd.
5. Administrators should provide technical assistance regularly to help kindergarten teachers more effective in the delivery of the kindergarten instruction.

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BENEFITS GAINED AND CHALLENGES ENCOUNTERED BY THE ELEMENTARY SCHOOL TEACHERS IN CONDUCTING CLASSROOM-BASED ACTION RESEARCH

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ABSTRACT

The main purpose of the study was to determine the benefits gained and challenges encountered by the elementary teachers in conducting classroom-based action research for the academic year 2019-2020. The descriptive questionnaire taken from the study of Ulla and Morales 2016 was used as data gathering instrument given to 165 elementary teachers in Mabini District. The result expressed that there is significant relationship between the challenges encountered in conducting classroom-based action research and their demographic profile in terms of teaching position, length of teaching experience and highest level of training attended. However, there is no significant relationship between the challenges encountered by the teachers in conducting classroom-based action research and their demographic profile in terms of age and highest educational attainment. The result conveyed that there is no significant relationship between the benefits gained by the teachers and their demographic profile in terms of age, highest educational attainment, teaching position, length of teaching experience and the level of training workshop on action research attended. The study concluded that limited time to conduct classroom-based action research was the main challenge faced among the teachers. It is recommended that the school administrators should conduct training on classroom-based action research and develop the culture of action research in the school. Time management should be observed. Action research must be included on the key areas for teacher in their IPCRF. Moreover, teachers who conducted action research should be given awards, recognition & incentives and the budget must be included from SEF/MOOE and is approved for the Basic Education Research Fund.

Keywords: action research, benefits, challenges, classroom-based, teacher –researcher

INTRODUCTION

Education is a continuously changing environment and educational reform increases pressure on teacher's acceptance of change. The ever-changing economy and workforce burden schools' curriculum, accountability and instructional support systems must reflect the skills for success in the 21st century (Seider & Lemma, 2004).

Thus, education is more than fostering understanding and appreciation. It is also concerned with change on how a teacher can act with understanding and sensitivity to improve teaching practices through adapting change in education.

As the Landscape of k-12 school changes, expectations for teachers to cooperate in school reform and be accountable for student achievement increases. To improve the quality of the educative process, action research is an attractive way for teachers, school administrative staff, and other stakeholders in the teaching and learning environment. To determine ways how to enhance the lives of children and professionals who work in educational systems, action research should be done. Moreover, action research in the educational environment conducted by the teachers in school settings has a great contribution to improve instructional practices as stated by Norasmah, (2016).

The Department of Education (DepEd) and the Commission of Higher Education (CHED) emphasized that doing research has become one of the important professional development programs for teachers in the Philippines. Thus, doing research has become now part of every teacher's

teaching evaluation and performance appraisal at the end of the school year (Morales, 2016).

Conducting action research in the country, especially in the public schools, maybe limited since only few teachers have tried to it due to tight teaching timetables and heavy teaching workloads (Ulla 2018).

In the Philippine educational institutions, teachers have encouraged to be involved in research as it is seen to be useful for their professional development and teaching career but teachers are confronted with many issues and challenges that affect their motivation to research as mentioned by Morales (2016).

This scenario ignites the researcher to conduct a study on benefits gained and challenges encountered by the elementary teachers in conducting classroom-based action research. The findings of this study may serve as a basis to design a program that will help teachers develop their skills in doing action research.

RELATED LITERATURE

Constructivism is a learning theory found in psychology that explains how people might acquire knowledge and learn. Therefore it has a direct application to education. The theory suggests that humans construct knowledge and meaning from their experiences. The constructivist theory holds that learning is an active process in which learners construct new ideas or concepts based upon their past and current knowledge (Bruner 1996).

Moreover, the fundamental principle of the Zone of Proximal Development (ZPD) by Vygotsky (1978) explains to the difference between what a learner can do without help and what he or she can achieve with guidance and encouragement from a skilled partner. It opened doors for others to work on the field ensuring learners' success in moving from guided to an independent display of knowledge, understanding and skills and to enable them to transfer this successfully in future situations. From this point of view, the development of learners' higher-order thinking and 21st century skills are highly facilitated.

Consistently, John Dewey's learning by doing theory represents different intellectual abilities. Learning styles, according to Dewey (1938) was wary of placing too much emphasis on the child's abilities but preferred to place his trust in a more balanced approach to education where teachers, students, and content were given equal importance in the learning equation. Ultimately, he believed that teachers should not be in the classroom to act simply as instructors, but should adopt the role of facilitator by giving students the opportunities to discover and to develop an active and independent learners. In some schools, a return to these values is long overdue.

The study is also anchored in the 1987 Philippine Constitution, Article XIV, Section 10, on Education Science and Technology states that "The State shall give priority to research and development, invention, innovation, and their utilization and science and technology education, training and services". It should provide and support quality research for the betterment of quality education for globalization.

Also in Republic Act 9155 which mandated DepEd to require all school divisions to engage in research activities. It means that all teaching and non-teaching personnel in the Department are enjoined to fully implement research in terms of doing priority improvement projects for future referrals and modifications.

The Department of Education (DepEd) adopts the enclosed Basic Education Research Agenda which guides stakeholders in the conduct of education research and in the utilization of research results to inform the Department's planning, policy, and program development aligned with its vision, mission and core values. The Research Agenda shall build on from existing research, generate new knowledge on priority research areas, focus DepEd's attention on relevant education issues and maximize available resources for research within and outside the Department.

Research is a quest, an attempt to better understand the complex world we live in. It is considered as an endeavor that can have the highest possible purpose-to help others. Norton (2009) stated that action research is a process of systematic inquiry that seeks to improve social issues affecting the lives of people.

The result of action research could provide intuition to both teachers and researchers alike as it is both grounded in theory and has taken place in an actual classroom context. Using action research in a practicum greatly expanded understanding of the classroom dynamics and it aided teachers' ability to undertake critical incidents inside the classroom (Kasula, 2015).Ultimately, the solution-based, emphasis on fostering pragmatic appeal of action research collectively render this research methodology a worthwhile professional development activity for teachers as the

daily evidenced in the teaching profession. To conclude, universities must include action research as a core unit in teacher preparation degree programs as the action research sequence holds significant value to improving practice within classrooms, schools and communities (Mitchell, Reilly, Logue, 2009).

As Ulla (2017) stated in the Australian Journal of Teacher Education, despite being an aspect of teacher appraisal, teachers are still electing not to undertake research, not only in the higher education institutions but also in the primary and secondary school contexts in the Philippines.

The present study identified the perceptions and motivations, including the challenges and the needs of the teachers in Agusan del Norte, the Philippines with regards to doing research. The findings demonstrated that teacher respondents had positive perceptions of doing research and its benefits to their teaching practice and their students' learning process.

Moreover, the study of Vazquez (2017) reported challenges such as lack of research knowledge and skills, heavy teaching loads, and lack of financial support from the school were disincentives for these teachers from doing research. Thus, research training, research incentives, and lighter teaching timetable were what the teachers perceived they needed. The results, which were reported in this study, were not only applicable in the Philippine school contexts but for all educational institutions in the world. It is therefore important to regard teachers' needs, perceptions and challenges towards researching to motivate them to do research and to improve not just their teaching practice but also for them to grow professionally.

On the other hand, based on information gleaned from questionnaires and interviews with teachers who engaged in action research as a capstone to their Master's program during the years 1992 through 2001, and on data from these teachers' administrators and colleagues, six assertions are reported. (1) Teachers sustained the 'inquiry mindset' gained while learning the processes associated with conducting action research and continued using aspects of the process; however, conducting new projects was less likely. (2) Teachers' sense of professional efficacy was enhanced, even after many years had intervened. (3) Action research had immediate benefits for students but long-range benefits were not determined. (4) Though challenging, teachers perceived conducting action research was professionally valuable. (5) Teachers reported that administrators, although supportive, played passive roles, whereas colleagues were more collaborative during the planning and implementing their projects. (6) Teachers described school environments conducive to conducting action research as ones that provide structures for teams to work on mutual goals supported by strong administrative leadership (Seider & Lemma 2004).

The study of Horn and Jang (2017) revealed that masters' degree attainment is not significant to the students' outcomes. In connection, classroom-based action research helps improves the teaching and learning process, this leads to positive students' outcomes.To connect with, a study conducted by Biruk (2013) as cited by Ulla (2018) that in Ethiopia affirmed that only a few teachers conducted research studies, because of the lack of teachers' research skills and expertise. Although the teacher-participants held a positive attitude towards research, their participation and contribution were reported to be low. Factors like lack of research knowledge, insufficient research training programs for teachers to enhance and develop their research skills, and lack of reference materials limited them from doing research.

Action research as a powerful platform for teachers' professional development should find its best expression in the transformation of the classroom. Since teachers study and work on their problems in their classrooms, they are afforded the privilege to examine their teaching, analyze classroom contexts from a broader and scientific perspective, and to seriously engage in reflective practice. Thus, conducting action research provides beneficial and enabling experiences that may impact teachers' professional career development; empower them to transform their classrooms; and contribute to the community of practice. (Morales et al, 2016).

In this connection, action research is a useful professional process that impacts daily teaching, and the process elicits change. Participating in action research impacts teachers and instructional practices. Its benefits lead to improvements in educational practice. With this, teachers consistently commented that the action research process made them more aware of their teaching practices and more cognizant of their students' needs. Teachers appeared empowered and confident concerning pedagogical practices and decisions. Besides, action research can empower teachers to change by pushing a teacher themselves out of their comfort zone. These challenges are necessary, particularly related to classroom practice to lead to positive change. Furthermore, action re-

search puts the teacher in many new roles, teacher as researcher, teacher as decision-maker and teacher as a change agent. Implementing the action research process has helped inform daily instruction and has transformed, changed, and expanded teachers' curriculum perspectives, choices, and thinking. (O'Connor, Greene & Anderson 2014).The study of Gordon and Solis (2018) has several implications for action research in general and teacher leaders' facilitation. First, although the preparation of teacher leaders for the coordination of action research was not part of the study, professional development for that purpose had been provided to all four teacher leaders, and it seems clear that one prerequisite for successful leadership of action is such professional development. We doubt that the teacher leaders in this study would have been as effective as they were at leading action research if they had not participated in such training the year before full-scale implementation of the action research. Another prerequisite for successful action research is the support of the school principal. As with the professional development for teacher leaders, it is hard to imagine that these action research projects would have been successful without principal support. Although none of the principals were heavily involved in the action research and thus were not a primary focus of our case studies, they all supported the initiation and continuation of action research, and the teacher leaders kept them informed of each phase of the action research and consulted with the principals whenever problems arose or modifications were necessary.

In the study of Zeleke (2014), concluded that if teachers are provided with the necessary support and assistance that facilitates their engagement in action research, there is a fertile ground to make government secondary schools in Addis Ababa as sources of knowledge from the findings of teachers' action research. Seen from this angle, it is concluded that although there are favorable policy initiatives to promote secondary school teachers conduct action research, there is a wider gap between what the government intends to achieve through action research in its secondary schools and what is going on regarding action research conducted at the grassroots level in government secondary schools of Addis Ababa. Based on the findings from, the present study, it is possible to conclude that the presence of qualified teachers with the basic skills needed to conduct action research coupled with positive attitudes toward action research and appreciations of the roles of action research to solve the daily classroom problems encountered in their workplaces, a lot could be done to utilize secondary school teachers and enhances their participation in action research and thereby solve the different educational problems in which our education system is currently engulfed in secondary schools. The present study explored the experiences, motivations, challenges, and perceived benefits of 11 public high school-teachers while undertaking a research study in their respective schools in Butuan City, Mindanao, Philippines. Among the motivations that teacher-researchers had in doing research was the completion of their graduate degrees and job promotion (Ulla 2018).Furthermore, Ulla (2018) revealed that conducting classroom and school research does not only improve teachers' teaching styles and practices, it also allows teachers to grow professionally and personally. The present study attempted to identify the experiences, motivations, challenges, and perceived benefits for 11 public high school-teachers in Mindanao, Philippines. The findings indicated that the teacher-researchers as participants of the study held a positive perception when doing research, most of them were motivated to do school research only because they wanted to be promoted and to have an increase in their salary. Some challenges that were reported include the lack of financial support, heavy teaching load, lack of research skills and knowledge, and lack of research resources. For one, it equips teachers and other education practitioners with the skills necessary for identifying what the problem is in the school and knowing how to address that problem.

One of the ways to overcome the challenges of implementing action research would be to create contexts in which teachers could network and share their research. They need to present reports and share their findings with colleagues. Schools or district educational offices could hold conferences periodically to facilitate these activities. These conferences could serve as venues for in-service training and professional development. In Malaysia, this idea is currently supported by the Sibu District Education Office (2014), which qualifies participation in the Sarawak Teachers' Conference on Action Research, Innovation, and Research as in-service training. Books and certificates are symbols of recognition and awards recognize the achievements of teachers who have successfully implemented action research to improve their teaching practices (Norasmah & Chia, 2016).

Furthermore, through research new knowledge technology discovered. New

knowledge can result in the development or improvement of skills, behavior and practices. Moreover, new and improved strategies can result good performance which contributes to quality teachers and learners.

Stephenson and Barbara, (2018) stated that through participation in collaborative action research the participants in the three different programs were transformed. Their paper has highlighted the complex, collaborative, and co-constructed nature of the process of professional learning. Proof of the value of the action research model was evident in the outcome of this process were supervisors, teachers and graduate students developed greater knowledge, skills, and confidence in their content area instructional approaches, their attitudes toward students, content areas and themselves as teachers of children or as leaders in educational change. They had become change agents for better leadership, teaching and learning on leadership roles in their nation. The three projects discussed in this paper illustrate how teachers can move beyond their traditional roles to assume leadership roles contributing to the knowledge base on teaching and learning.

Gordon and Solis (2018) added that the proper role of the teacher in research is not to test and contribute to theory, nor should it attempt to generalize beyond the local context. Instead, teacher research should answer the questions that teachers themselves have concerning their daily classroom practice.

Conducting research is considered vital in educational growth. It has proven helpful in identifying issues, problems, conflicts, and in providing solutions to problems in the school then later in the workplace as written in the book of Portillo, Gamboa, Flores et. al. (2003).

Norton (2009) said that action research efforts can be encouraged or subverted by the contexts.This knowledge is very important to have the best chance of carrying out a pedagogical action research study that will influence and change matters to improve student learning.

According to Gebhard (2005), awareness of teaching through action research makes teachers have chances to advance their reflective skills. As a part of doing action research, teachers have opportunities to develop their reflection-in-action and reflection-on-action. Moreover, doing action research has the emphasis on creating a forum to talk through issues related to teaching problems, to communicate teaching ideas and to voice concerns at the classroom, school and even national levels.

Burns (2010) stated that doing action research in education is not a new concept that educators did not know about. He added that action research has been going on for so long that its ideas circled "reflective practice" and "teacher as researcher" to discover and solve the problems in the classroom teaching. This does not mean that there is indeed a problem with the teachers' way of teaching, or that the teacher is ineffective rather than focuses on what could have been done better. Reflecting on the classroom teaching practices by examining better ways to improve on what is happening to what the teacher wants to see happening in the classroom is what action research is all about.

Moreover, the study of Bilgili, 2005 discussed that one important drawback continually identified through the research process by the teacher-researchers was the amount of time needed for conducting their action research. In this process, the value of the classroom-based research outweighed the time commitment as they had planned to continue with another plan for the upcoming year. The findings of his study also revealed that the research question of the teacher-researchers identified appeared to not only guide the action research study but also the areas of learning that the participants experienced. Therefore, framing the action research question played a critical part in the process of doing action research.

OBJECTIVES

Specifically, this study sought to answer the following questions:

1. What is the profile of the respondents in terms of:
   - 1.1 Age;
   - 1.2 Teaching Position;
   - 1.3 Highest Educational Attainment;
   - 1.4 Length of Teaching Experience; and
   - 1.5 Level of Training/Seminar-Workshop Attended?
2. What are the challenges encountered by the elementary school teachers in conducting classroom-based action research?
3. What are the benefits gained by the elementary school teachers in conducting classroom-based action research?
4. Is there any significant relationship between challenges encountered and benefits gained by elementary school teachers in conducting action research in terms of:

4.1. Age;
4.2. Teaching Position;
4.3. Highest Educational Attainment;
4.4. Length Teaching Experience; and
4.5. Level of Training/Seminar-Workshop on Action Research Attended?

5. What proposed plan can be suggested to help teachers in conducting classroom-based action research?

RESEARCH METHODOLOGY

Design

This study used descriptive documentary method with the questionnaire as data gathering instrument to determine the challenges encountered and benefits gained by elementary teachers in conducting classroom-based action research. The non-probability sampling such as convenience sampling was used to select the participants of the study.

Environment and Participants

The research was conducted in public elementary schools of Mabini District comprising the 21 public elementary schools with a total of 165 teachers during the school year 2019-2020. This district is located at the eastern part of Bohol and is part of Third Congressional District of Bohol. Figure below is shown for the distribution of the respondents and the locale of the study.

Instrument/Tool

This research work made use of the following instruments:

1. The Respondent's Descriptive Questionnaire was utilized to identify the demographic profile of the respondents such as Age, Teaching Position, Highest Educational Attainment, Length of Teaching Experience, and Level of Training/Seminar Workshop Attended.
2. Challenges encountered and benefits gained by the teacher in conducting classroom-based action research. The researcher adapted a modified survey questionnaire developed by Morales (2016) and Ulla (2018). Moreover, the Likert Scale-type or frequency scales was used to fixed choice response formats and was designed to measure opinions of the respondents. These ordinal scales measure 4 to 1; 4 as Strongly Agree, 3 as Agree, 2 as Disagree and 1 as Strongly Disagree.

Data Gathering Procedure

The researcher asked permission from the Schools Division Superintendent of Bohol Division through a letter noted by the Dean of the College of Advanced Studies (CAdS) to conduct this study. Upon approval of the superintendent, the researcher also requested permission from the Schools District Supervisor and school heads. The researcher then personally distributed the questionnaires to the Elementary teachers in Mabini District. Teachers responded on the questionnaires on profile, challenges encountered and benefits gained in conducting classroom-based action research.

Data Analysis

To determine the relationship between the profile of the respondents and the challenges encountered and benefits gained by the elementary school teachers in conducting action research the Chi-square formula was used.

THE FINDINGS

Table 1. Profile of the Respondents
N = 165

1.1 Age	**Frequency**	**Percentage (%)**
25 years old and below	12	7.27
26-30 years old	26	15.76
31-35 years old	42	25.45
36-40 years old	27	16.36
41-45 years old	16	9.70
46-50 years old	17	10.30
51-55 years old	18	10.91
56 years old and above	7	4.24
Total	**165**	**100%**
1.2 Teaching Position		
Teacher I	70	42.42
Teacher II	3	1.82
Teacher III	85	51.52
Master Teacher I	7	4.24
Master Teacher II	0	0
Master Teacher III	0	0
Master Teacher IV	0	0
Total	**165**	**100%**
1.3 Highest Educational Attainment		
Bachelors' Degree	29	17.58
With MA Units	87	52.73
MA CAR	42	25.45
MA Graduate	6	3.64
With Ph. D Units	1	0.61
Ph. D CAR	0	0
Ph. D Graduate	0	0
Total	**165**	**100%**

1.4 Teaching Experience		
Less than 1 year	10	6.06
1-5 years	45	27.27
6-10 years	44	26.67
11-15 years	27	16.36
16-20 years	20	12.12
21-25 years	10	6.06
26-30 years	5	3.03
31 years and above	4	2.42
Total	**165**	**100%**
1.5 Level of Training/Seminar-Workshop on Action Research Attended		
School Based	30	18.18
District Level	134	81.21
Division Level	0	0
Regional Level	0	0
National Level	0	0
International Level	1	0.61
Total	**165**	**100%**

Table 1 shows the profile of the respondents in terms of age, teaching position, highest educational attainment, teaching experience, and level of training and seminar-workshop on action research attended.

It has revealed that Forty-two (25.45%) were 31-35 years old and seven (4.24%) were 56-60 years old. This means that most of the teachers in Mabini District were young and not yet retirable. On the other hand, the result is in accordance with the study of Ulla (2018) whose respondents ranged the ages from 26-45 years old.

The table also presented that majority of the teacher-respondents were teacher III with eighty-five (51.52%) and only three (1.82 %) were Teacher II. The result indicates that most of the teachers in Mabini district have a position of teacher III and only a few were teacher II. The table also presented that most of the respondents earned MA units with 87(52.73%) and only one (0.61%) had Ph. D units and none hold a doctorate. This only tells that most of the teachers' respondents earning master units and none of them hold a doctorate.

As the CPD Law (R.A 10912) hereby declared the policy of the state shall continue to improve the competence of the professionals. To grow professionally teachers should earn degrees to shoe a deep level of understanding and commitment to the profession. Earning a master's degree strengthens teaching practices to discover ways to improve learners' outcomes.

As it is shown in the table, more than forty-five (27.27 %) of the respondents have spent 1-5 years of teaching and approximately four (2.42%) were considered experienced teachers who spent 31 years and above in teaching. However, teachers with more than 20 years of experience are more effective than teachers with no experience but are not much more effective than those with 5 years of experience (Ladd, 2008).

Furthermore, one hundred thirty-four or (81.21%) of the teacher-respondents had attended training and seminars-workshop on District Level and only 1 or (0.61%) attended at an international level on action research.

This finding implies that most of the respondents attended a seminar-workshop on action research on the District level.

Table 2. Challenges Encountered by the Elementary School Teachers in Conducting Classroom-Based Action Research
N=165

Statement	Weighted Mean	Verbal Interpretation
1. Limited opportunity of training and seminar on research.	2.78	Agree
2. I do not feel confident in undertaking action research due to lack of research knowledge and skills.	2.87	Agree
3. Insufficient budget in the school to undertake action research.	2.74	Agree
4.Lack of technical support from principals	2.48	Agree
5. Negative attitude of teachers towards undertaking action research.	2.67	Agree
6. Lack interest to conduct action research.	2.79	Agree
7.Insufficient reference materials (journals, research books, research reports and etc.in the library	2.82	Agree
8. Lack of recognitions to conduct action research	2.47	Disagree
9. Limited time to conduct classroom-based action research.	3.05	Agree
10. Lack of clear role of teachers in the school to conduct action research.	2.75	Agree
11. I am not encouraged to carry out action research due to lack of incentives.	2.35	Disagree
Average Weighted Mean	**2.71**	**Agree**

Legend:

Rating Scale	**Verbal Interpretation (VI)**
3.25 – 4.00	Strongly Agree (SA)
2.50 – 3.24	Agree (A)
1.75 – 2.49	Disagree (D)
1.00 – 1.74	Strongly Disagree (SD)

Table 2 reveals the respondents' assessment of the challenges encountered by elementary school teachers in conducting classroom-based action research. The table shows that statement number 9 "Limited time to Conduct Classroom-Based Action Research" got the highest weighted mean of 3.05 and with a verbal interpretation of "Agree". It is followed by statement number 2 "I do not feel confident in undertaking action re-

search due to lack of research knowledge and skills" with a weighted mean of 2.87 and interpretation agree. This means that most of the respondents got the problem of time constraints in conducting research aside from the lack of confidence in undertaking action research due to lack of research knowledge and skills. This is based on the result of the findings of Ulla (2018) that conducting action research in the Philippines may be limited since few teachers have tried it due to tight teaching timetables and heavy workloads result in limited time to conduct action research.

On the other hand, statement number 11 "I'm not encouraged to carry out action research due to lack of incentives" got the lowest weighted mean of 2.35 and with the verbal interpretation of "Disagree" This implies that teachers do not develop action research for incentives purposes.

Table 3. Benefits Gained by the Elementary School Teachers in Conducting Classroom-Based Action Research N=165

Statement	Weighted Mean	Verbal Interpretation
1. Get promoted in the job.	3.20	Agree
2. Give positive impact on teaching.	3.33	Strongly Agree
3. Improves teaching practices.	3.34	Strongly Agree
4. Improves teaching and learning delivery.	3.32	Strongly Agree
5. It serves as mirror in the classroom.	3.30	Strongly Agree
6. Promotes a process of testing new ideas.	3.32	Strongly Agree
7. Fosters democratic approach to education.	3.27	Strongly Agree
8. It helps develop teachers' deeper understanding of pupils and the teaching learning process.	3.41	Strongly Agree
9. Helps in developing problem-solving abilities.	3.37	Strongly Agree
10. Becomes more systematic observers of pupils' behavior during instruction.	3.27	Strongly Agree
11. It fosters professional growth as teachers.	3.43	Strongly Agree
Average Weighted Mean	**3.32**	**Strongly Agree**

Legend:

Rating Scale	Verbal Interpretation (VI)
3.25 – 4.00	Strongly Agree (SA)
2.50 – 3.24	Agree (A)
1.75 – 2.49	Disagree (D)
1.00 – 1.74	Strongly Disagree (SD)

While statement number 1 "Get Promoted in the job" got the lowest weighted mean of 3.20 with the verbal interpretation of "Agree". The result accords to the finding of the study of Morales (2016) that in the Philippine educational institutions, teachers have encouraged to be involved in research as it is seen to be useful for their professional development and teaching career. As the Department of Education and the Commission of Higher Education emphasized that doing research has become one of the important professional development programs.

Table 4. Relationship Between the Respondents' Profile and the Challenges Encountered by the Teachers in Conducting Classroom-Based Action Research N = 165

Profile	X^2	df	p-value	Interpretation	Decision
Age	16.16	21	0.760	Not Significant	Accept Ho
Highest Educational Attainment	17.39	12	0.135	Not Significant	Accept Ho
Teaching Position	19.63	9	0.020	Significant	Reject Ho
Length Teaching Experience	66.39	21	<0.001	Significant	Reject Ho
Highest Level of Training Attended	14.09	3	0.003	Significant	Reject Ho

**Correlation is significant at 0.05 level (2-tailed)*

Table 4 shows the test of the relationship between the challenges encountered by the teachers in conducting classroom-based action research and their demographic profile in terms of age, highest educational attainment, teaching position, length of teaching experience, and the highest level of training attended.

The result expressed that there is a significant relationship between the challenges encountered by the teachers in conducting classroom-based action research and their demographic profile in terms of a teaching position, length of teaching experience and level of training/seminar workshop attended since the computed chi-square value of 19.63 at 9 degrees of freedom, 66.39 at 21 degrees of freedom, and 14.09 at 3 degrees of freedom respectively with the corresponding computed p-value of 0.020, <0.001, and 0.003 which are lesser than 0.05 level of significance, thus the null hypothesis is rejected.

This denotes that teaching position, length of teaching experience, and level of training attended play an important role in the challenges encountered by the teachers in conducting classroom-based action research.

Based on the study of Melnick and Meister (2008), numerous studies confirmed that those new teachers do not have the requisite knowledge to understand the complex interrelationships among management, behavior and academic task. However, the knowledge gained through experi-

ences and therefore those who have less experience will acquire more reflective and comprehensive understanding practice during the entire field of teaching.

Also, the study of Wagas (2013) as cited by Ulla (2018) that attending research workshop creates a positive impact on teachers in doing action research. Thus, teachers need to be exposed to research training, seminars and conferences to develop more of their skills and to confidently conduct action research on their own.

However, there is no significant relationship between the challenges encountered by the teachers in conducting classroom-based action research and their demographic profile in terms of age and highest educational attainment since the computed chi-square value of 16.16 at 21 degrees of freedom and 17.39 at 12 degrees of freedom respectively with the corresponding computed p-value of 0.760 and 0.135 which are greater than 0.05 level of significance, thus failed to reject the null hypothesis. This depicts that the age and highest educational attainment has nothing to do with the challenges encountered in conducting classroom-based action research. Harris, Jones and Saldera (2015) support the notion that teachers with more years of experience may be more familiar with varied educational practices and research.

Table 5. Relationship Between the Respondents' Profile and the Benefits Gained by the Teachers in Conducting Classroom-Based Action Research
N = 165

Profile	X^2	df	p-value	Interpretation	Decision
Age	7.84	14	0.897	Not Significant	Accept Ho
Highest Educational Attainment	6.42	8	0.600	Not Significant	Accept Ho
Teaching Position	1.55	6	0.956	Not Significant	Accept Ho
Length Teaching Experience	17.98	14	0.208	Not Significant	Accept Ho
Highest Level of Training Attended	2.32	3	0.313	Not Significant	Accept Ho

**Correlation is significant at 0.05 level (2-tailed)*

Table 5 displays the test of the relationship between the benefits gained by the teachers in conducting classroom-based action research and their demographic profile in terms of age, highest educational attainment, teaching position, length of teaching experience, and the highest level of training attended.

The result conveyed that there is no significant relationship between the benefits gained by the teachers in conducting classroom-based action research and their demographic profile in terms of age, highest educational attainment, teaching position, length of teaching experience and the highest level of training attended since the computed chi-square value of 7.84 at 14 degrees of freedom, 6.42 at 8 degrees of freedom, 1.55 at 6 degrees, 17.98 at 14 degrees of freedom, and 2.32 at 3 degrees of freedom, respectively with the corresponding computed p-value of 0.897, 0.600, 0.956, 0.208, and 0.313 which are greater than 0.05 level of significance, thus f nailed to reject the null hypothesis. This indicates that the respondent's profile doesn't affect teachers in gaining the benefits if the classroom-based action research.

The study of Horn and Jang (2017) revealed that masters' degree attainment is not significant to the students' outcomes. States and school districts frequently promote graduate education as a means of improving teacher effectiveness, though this approach is not uniformly efficacious as mentioned by Aaron (2017).

CONCLUSIONS

Through the findings, these conclusions are formulated:

The limited-time to conduct classroom-based action research was the main challenge faced among the teachers and most teachers said that classroom-based action research fosters professional growth. Classroom-based action research was not only for professional development but one way of helping pupils more systematically and scientific way.

Moreover , based on the findings the result expressed that there is a significant relationship between the challenges encountered by the teachers in conducting classroom-based action research and their demographic profile in terms of a teaching position, length of teaching experience and level of training/seminar workshop .This denotes that teaching position, Length of Teaching Experience, and Level of Training attended play an important role in the challenges encountered by the teachers in conducting classroom-based action research.

In addition, the result conveyed that there is no significant relationship between the benefits gained by the teachers in conducting classroom-based action research and their demographic profile in terms of age, highest educational attain-

ment, teaching position, length of teaching experience and the highest level of training attended. This indicates that the respondent's profile doesn't affect teachers in gaining the benefits if the classroom-based action research.

RECOMMENDATIONS

Based on the findings and in relation to the above conclusions, the following recommendations were furnished:

1. Principal and School administrators should conduct a Training and Seminar-Workshop on Classroom-based action research. Develop the culture of action research in the school which includes principals and teachers.
2. Teachers should observe time management.
3. Include action research on the key areas for a teacher in their Individual performance Commitment & Review (IPCR)
4. Give awards, recognition & incentives to teachers who concluded Action Research.
5. Include budget from SEF/MOOE for those teachers who conduct Action Research and is approved for the Basic Education Research Fund (BERF)
6. Future researchers in the educative process may use the findings as a basis for future research or conduct related-studies to improve teaching practices and pupils' performance.

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STATUS OF MASTER OF ARTS IN EDUCATION GRADUATES OF BOHOL ISLAND STATE UNIVERSITY CANDIJAY CAMPUS: A TRACER STUDY

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ABSTRACT

The paper is a tracer study of the status of the graduates on Master of Arts in Education (MAED) major in Educational Management in Bohol Island State University-Candijay Campus. The objective was to trace MAEd graduates and to track down employment status of alumnus/alumnae. It also aimed to assess the programs' contribution to the personal and professional growth of the graduates. This used the descriptive survey method with the aid of adopted questionnaire from Tarlac State University (2016) to gather factual information from the respondents. The participants were the 93 BISU-Candijay Campus Graduates of Master of Arts in Education, major in Educational Management from SY 2013 – 2019. Results reveal that majority of the graduates are female, employed in public schools, working permanently, 40 received award as "magna cum laude", and majority of the graduates were promoted after they acquired education-related knowledge and skills as Master's Degree Holder. There is a significant relationship between the Master's Degree Program of BISU to the level of contribution to their personal and professional growth. However, there are some aspects of the program that needs improvement. BISU must further enhance its curriculum to ensure its relevance and responsiveness to the needs of the students such as the usage of laboratory and library resources, and limitations on the class size. Further research should also be conducted to update the status of MAED graduates of Bohol Island State University-Cogtong, Candijay Campus. Results from this study are intended to be used along with other institutional research information to strengthen the MAED curriculum and improve the overall quality of BISU's Graduate School course offerings.

Keywords: BISU, Graduate, HEIs, MAED, Masterand, Status, Tracer study

INTRODUCTION

Graduate Education, as one of the service-providers in the university, is at the apex of the educational system. In the field of education, graduate studies are effective means to improve the skills and abilities of education professionals, in order to contribute to the continued advancement of teaching and learning capacities in the classrooms, delivery of student services, and management of educational programs (CHED MEMORANDUM ORDER (CMO) No. 53, series 2007). Those skills include but not limited to knowledge and technical skills, communication skills, leadership skills, research skills, and information and communication technology skills. As the graduate students develop these skills, they become more adaptable and confident in decision making in a complex work environment. Their ability to evaluate, articulate, and discover more efficient ways to perform a task will be enhanced through the skills they acquire.

In this viewpoint, the researchers intend to determine the extent of use of the skills, the relatedness of the skills to the task, and the adequacy of skills learned among graduates in the graduate studies. One way that educational institutions may consider enhancing service quality in the university is by considering how the students' connection to the university campus and their willingness to benefit from all the services may influence their level of satisfaction (Uka, 2014). The services, learning environment, and facilities of an institution may greatly influence the degree of attractiveness and the students' overall satisfaction. Graduate tracer studies could appropriately pro-

vide valuable information to evaluate the results of the education and training of a specific institution of higher education and could collect essential information concerning the employment profile of graduates, their first and current jobs as well as the relevance of their educational background and skills required in their job. According to the study of Vong, C. (2015), tracer studies also could collect data on the relevance of the curriculum and the graduates' level of satisfaction to their academic preparation.

By obtaining this kind of information, the College of Advance Studies of BISU- Candijay, can show the success of its educational efforts pertaining to its graduates, the labor market, and employers. Strategically, the institution can identify areas for growth and development in the context of quality assurance and the provision of relevant preparation and training. Any possible deficits in its program offerings in terms of administration, content, delivery and relevance can be ascertained and improved.

RELATED LITERATURE

According to Nordin (2009) in a seminar, today's challenging economic situation means that it is no longer sufficient for a new graduate to have knowledge of an academic subjects; increasingly it is necessary for the students to gain skills which will enhance their prospects of employment. Hence, Higher Education Institution must be responsive to these changes and one way of showing that they are responsive is conducting a graduate tracer study.

The ILO Thesaurus 2005 as cited by American International Journal of Contemporary Research (2014) defines a tracer study as an assessment tool where the "impact on target groups is traced back to specific elements of a project or program so that effective and ineffective project components may be defined." Furthermore, graduate survey results are important for "analysis of relationship between higher education and work." According to Mensah & Babitseng (2009), tracer study has objectives to build strong bonds between the institution and its graduates, because the alumni are the excellent source of advice for improvements of institution and to measure the extent of environment and employer demands.

In the Philippines, the Commission on Higher Education requires all HEIs to conduct a tracer study and is equally reflected as one of the required documents by any higher education accrediting body such as the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP), Inc. In the study of Menez (2014), the role of higher education institutions can not only be limited to impart knowledge, but also to contribute to maintain a competitive economy and most important of all, to secure the dream of graduates to get jobs and become socially recognized and successful in their respective field of endeavors.

Moreover, Van Veen (2010) states that teacher professional development in the educational context is designed specifically to enhance knowledge, attitudes, and learning behaviors of teachers to bring: 1.changes in the classroom practice of teachers, 2. Changes in their attitudes and beliefs, and 3. Changes in the learning outcome of students. This study was supported by the following theory in education. Social Cognitive theory states that learning is a social activity in which we learn through interactions with others. It is important that teachers must continue their professional development by enrolling at some universities in their master or doctorate degree in order for them to have time to socialize and at the same time learn from other mentors. In another theory, the Experiential learning theory states that learner experiences things for themselves and learning from them. Kolb (1984) proposed a four-stage model known as the experiential learning cycle. It is a way by which people can understand their experiences and as a result, modify their behavior. It is based on the idea that the more often a learner reflects on a task, the more often they have the opportunity to modify and redefine their efforts. Furthermore, the theory of Pragmatism emphasize that teachers facilitate learning through various activities rather than by using a traditional method. Dewey (1952) believed that learners learn more from guided experiences than from authoritarian instruction. Using different delivery approaches, combined with practical activities, will help reach the different learning preferences of the individuals.

Bohol Island State University-Candijay (BISU-Candijay) is a public university campus located in the municipality of Candijay, Bohol. Formerly known as the Bohol School of Fisheries (BSF), the school later became part of the Central Visayas State College of Agriculture, Forestry and Technology (CVSCAFT) system, which presently known as the Bohol Island State University. It was originally composed of five (5) independent vocational and technical public schools in the province of Bohol, integrated by virtue of Repub-

lic Act 8659 signed on June 22, 1998. Aside from undergraduate programs, BISU-Candijay Campus offers graduate degree program and this is the Master of Arts in Education (MAED) major in Educational Management. This course aims to develop students' skills on effective leadership and educational management practices.

This study was supported by the Republic Act no. 10912, it is an act mandating and strengthening the Continuing Professional Development Program for all regulated professions, creating the continuing professional development council. It is hereby declared the policy of the State to promote and upgrade the practice of professions in the country. It is also stated in the Code of Ethics for Professional Teachers or the Republic Act no. 7836 Article IV Section 3 that every teacher shall participate in the Continuing Professional Education (CPE) program of the Professional Regulation Commission (PRC), and shall pursue such other studies as well improve his efficiency, enhance the prestige of the profession, and strengthen his competence, virtues, and productivity in order to be nationally and internationally competitive. One way to improve teaching efficiency and enhancing the prestige of the profession is to earn a post-graduate study. This is also the main reason why Bohol Island State University offered post-graduate study supported by the BOR Resolution No. 21 Series of 2008. It is a resolution approving the curriculum to be offered at CVSCAFT Candijay Campus: Master of Arts in Education (MAED).

The MAED in Educational Management program provides students with strong foundation on the theories and concepts in human development learning, assessment quality and standards and finance and resource management. It also allows students to explore the theoretical and practical aspects of curriculum development, supervision of instruction and school activities and educational legislations. It can be an asset when applying for higher positions in academic institutions and educational organizations such as the Department of Education (DepEd), Commission on Higher Education (CHED), TESDA, etc. this will give an edge among the applicants.

Being a teacher means lifelong learning, both formally and informally. Our society is constantly changing and therefore also the educational context of schools and the student and teacher population. Professionals need to be fully equipped with the knowledge, skills, and attitudes needed to enhance student learning in this constantly changing environment. It is really important that a teacher or a professional must plan their professional development. Continuing professional development (CPD) involves maintaining and enhancing the knowledge, skills and experience related to your professional activities following completion of formal training. According to the British Journal of In-service Education, Vol.23, No.1 (2006), the outcomes of continuing professional development training are the following: general awareness of new skills, organized knowledge of underlying concepts and theory, learning of new skills, and application on the job.

OBJECTIVES

The specific objectives of the study are:

1. What is the profile of the respondent's in terms of:
   1.1. Age;
   1.2. Honors received; and
   1.3. Job level position?
2. What is the profile of the respondent's in terms of:
   2.1. Sex; and
   2.2. Year graduated?
3. What is the respondent's job level before taking MAED program and after graduating MAED?
4. What are the respondents' reasons of taking/ pursuing the degree?
5. What is the respondents' employment information based on the following questions:
   5.1. Are the respondents working while studying?
   5.2. Which one best describes the respondents' current work position?
   5.3. How did the respondents come to know their current job?
   5.4. Is the respondents' degree earned from BISU provided the technical know-how of your job?
   5.5. How useful to respondents' job the knowledge and skills learned from BISU?
   5.6. How satisfied are the respondents with their current job?; and
   5.7. Do the respondents intend to stay in their job?
6. What is the respondents' current employment status in terms of:
   6.1. Type of Organization; and
   6.2. Job status?
7. What is the level of contribution of the Master's Degree Program of BISU-Candijay

Campus to the respondents' personal and professional growth?

8. What is the respondent's assessment on the Master's Degree program of BISU Candijay Campus?
9. Is there a significant relationship between the respondents' assessment on the Master's Degree Program of BISU-Candijay Campus and the level of contribution to the personal and professional growth of the respondents?
10. Based on the findings, what measures may be proposed to enhance the Masters Degree program of BISU- Candijay Campus?

RESEARCH METHODOLOGY

Design

To gather all the needed data and information, and achieve the purpose of this study, the researcher utilized descriptive research design with the aid of an adopted questionnaire from Tarlac State University (2016) after getting the concurrence from the expert. The researcher used non-probability sampling such as the convenience sampling in choosing the participants of the study.

Environment and Participants

BISU Candijay Campus is situated at Cogtong, Candijay, Bohol which approximately five kilometers away from Poblacion and around 15 minutes ride of a single motor service or "habal-habal" as the common transportation going to the coastal area of Barangay Cogtong.

The research subjects of study were the BISU -Candijay Campus Graduates of Master of Arts in Education, major in Educational Management from S.Y. 2013 – 2019. There was a total of 93 research respondents of this study which composed of 17 males and 76 females.

Instrument/Tool

The instrument used in the study was an adopted survey questionnaire which was used by the Tarlac State University (TSU) in their conducted tracer study. It is composed of two parts: first, the demographic profile of the respondents and the last part contains a qualitative statement with a Likert scale rating of 4-very highly, 3-highly, 2-fairly and 1-poorly.

Data Gathering Procedure

Initially, the researcher goes through a proper procedure of securing the approval from the Division Superintendent of Bohol Division through an official letter noted by the Dean of the College of Advanced Studies (CAdS) in BISU- Candijay to conduct this study. Upon the approval of the superintendent, the researcher also requested permission from the Schools District Supervisor. The researcher personally distributed the questionnaires to the respondents and thoroughly explained to them the importance of th study and assisted them in answering the questionnaires . After gathering the data, it was then tallied, tabulated, collated and were subjected to the specific problems of the study. Thus, adding empirical data.

Data Analysis

To determine the profile of teacher respondents and the relationship between the respondents' assessment on the master's degree program and its level of contribution to personal and professional growth, the percentage, weighted mean and the Pearson Correlation formula were used.

THE FINDINGS

Table 1. Profile of Respondents in terms of Age and Honors Received
N = 93

1.1 Age	Frequency	Percentage (%)
20-30 years old	19	20.43
31-40 years old	43	46.24
41-50 years old	27	29.03
51 years old and above	4	4.30
Total	**93**	**100%**
1.2 Honors Received		
Summa Cum laude	24	25.81
Magna Cum laude	40	43.01
Cum laude	17	18.28
No honors received	12	12.90
Total	**93**	**100%**

Table 1 shows the profile of the respondents in terms of age and honors received. It can be gleaned from the table that most of the respondents belonged to the age bracket of 31-40 with a frequency of 43 or 46.24% followed by the age range of 41-50 years old with a frequency of 27 or 29.03%. Only nineteen (19) out of ninety-three (93) respondents were in the age range of 20-30 and only few or four (4) out of ninety-three (93) were in the age range of 51 years old and above. This simply implies that most of the respondents are responsive enough towards their professional development.

In the University of British Columbia (2019), the average age of a master's student has jumped

significantly for those in the age group of 20–29. This age group increased from 51.7% to 64.24%, an increase larger than any other age group. This is the reasons that most master's students achieve their degree before the age of 35.

As to the honors received, it shows that most of the respondents graduated with flying colors and most of them got the award as magna cum laude with a percentage of 43.01%. 24 or 25.81% received Summa Cum Laude while seventeen (17) or 18.28% out of ninety-three respondents were Cum Laude. This means that most of the respondents were of very good academic records in their Master's Degree course.

Table 2. Profile of the Respondents in terms of Sex and Year Graduated
N=93

Items	Frequency	Percentage (%)
2.1 Sex		
Male	17	18.28
Female	76	81.72
Total	**93**	**100%**
2.2 Year graduated		
2013	1	1.08
2014	1	1.08
2015	6	6.45
2016	13	13.98
2017	19	20.43
2018	11	11.83
2019	42	45.16
Total	**93**	**100%**

In terms of sex, female respondents have the highest frequency of 76 or 81.72 % while, male respondents have 17 or 18.28%. It can be denote that, female respondents out-numbered the male respondents on this study

Perry, M. (2017) from the University of Michigan's Flint campus said that men received fewer Master's and doctoral degrees. Moreover, Durso, S. et al., (2016) stated that women tend to have higher educational level than men. Thus, it was expected that female students showed higher intrinsic motivation to pursue a Master's degree, when compared to male students, regardless of the course they have graduated with. To boot, National Center for Education Statistics (2011) exclaimed as cited by Ramirez (2017) that more women than men are obtaining bachelors, Master's, and doctoral degrees.

As to the year graduated, it can be denoted that the latest year got the highest frequency of 42 or 46.16%. Based on Table 2, the number of graduates per year or semester has a dramatic increase from the year that the program was started or implemented.

Table 3. Respondents' Job Level Position Before taking MAED and After Graduating MAED Program
N=93

1.3 Job level position	Before Taking MAED		After Graduating MAED	
	f	%	f	%
Teacher Applicant	2	2.15	1	1.08
Teacher I	58	61.37	16	17.2
Teacher II	0	0	2	2.15
Teacher III	18	19.35	48	51.61
Instructor III	1	1.08	0	0
Master Teacher I	2	2.15	10	10.75
Master Teacher II	2	2.15	2	2.15
Head Teacher I	2	2.15	2	2.15
Head Teacher II	0	0	0	0
Head Teacher III	0	0	0	0
Principal I	4	4.3	4	4.3
Principal II	2	2.15	3	3.23
Principal III	0	0	1	1.08
Assistant Professor I	1	1.08	1	1.08
Assistant Professor II	0	0	0	0
Assistant Professor III	0	0	0	0
Assistant Professor IV	0	0	1	1.08
Private	1	1.08	1	1.08
HR Department	0	0	1	1.08
Total	**93**	**100%**	**93**	**100%**

As to the job level position, it can be denoted that most of the respondents enrolled in the institution are in the Teacher I position with a frequency of 58 or 61.36% while after having their master's degree most of the respondents are in the Teacher III position with a frequency of 48 or 51.61%. This means that having a master's degree can influence the promotion of teachers. This could be an indicator that after completing their master's degree, the respondents were promoted to higher posts or have decided to look for greener pastures after having been conferred upon a MAED degree.

Table 4 shows the reasons of the respondents in pursuing their master's degree. It can be interpreted in the table that the top 3 main reasons of the respondents are (1.) Strong passion for the profession with a frequency of 58 or 62.37%;(2.) Prospect of career advancement with a frequency of 55 or 59.14%; and (3.) Inspired by a role model with a frequency of 43 or 46.24%. A graduate course is a chance to dedicate themselves to a subject they love. Others opt for a master's degree to boost or swap career because of their passion in the profession. According to a journal titled "Why role models are important?" (Fayyaz, 2018), it is stated there that having role models in our life is very important, and having good role models is more important, as they influence what we do and how we turn out eventually. Positive role models influence our actions and motivate us to strive to uncover our true potentials and overcome our

weakness. Having them pushes us to make the most of our life.

Table 4. Respondents' Reasons in Pursuing the Degree
N = 93

Statement	Frequency	Percentage (%)
High grades in the course or subject	17	18.28
Good grades in high school	20	21.51
Influence of parents or relatives	35	37.63
Peer influence	35	37.63
Inspired by a role model	43	46.24
Strong passion for the profession	58	62.37
Prospect for immediate employment	30	32.26
Status or prestige of the profession	29	31.18
Availability of course offering in chosen institution	40	43.01
Prospect of career advancement	55	59.14
Affordable for the family	33	35.48
Prospect of attractive compensation	29	31.18
Opportunity for employment abroad	3	3.23
No particular choice or no better idea	0	0

In table 5, it reveals the respondents' employment information. Most of the respondents are currently working while studying or pursuing their master's degree wherein 90 of the respondents got a percentage of 96.77 and only 3 of them are not working with a percentage of 3.23. It is in accordance to the study of Segismundo, M and Zacarias, M. (2017) which reveals that all 89 respondents or 100% were working while pursuing a degree at LCUP Graduate School. It could, therefore, be inferred that all graduates of MAED from 2012-2013 to 2015-2016 were capable of sustaining their education needs during their pursuance of Master's degree.

As to their current work position, most of the respondents are working full-time with a frequency of 90 or 96.77% and the remaining 3 respondents are not working with only 3.23%. This is an indication that Graduate School alumni are productive and are contributory to the society's and the country's pool of human resource (Menez, 2014).

As to the reasons of how the respondents come to know their current job, it shows that most of the respondents' reasons were through their relatives (38 or 40.86%) and through their friends (37 or 39.78%). This only means that family and friends had a great impact/influence to the decision-making of the respondents.

As to the question "Is the respondents' degree earned from BISU provided the technical know-how of their job?" all of the respondents answered "Yes" (100%). This only revealed that having master's degree can help teachers in their field of profession.

As to the usefulness of the knowledge and skills learned from BISU to the respondents, most of the them answered "very much" with a frequency of 75 or 80.65%, but there are also 17 respondents who answered "much" with 18.28% and only 1 respondent said "a little" with 1.08%.

With regards to the question "How satisfied are the respondents with your current job", 78 of the respondents responded "very much" with 83.87% and there are 15 of them answered much with 16.13%.

As to the question "Do the respondents intend to stay in their job?", 97.85% or 91 respondents answered "yes" and only 2.15% or 2 of them answered "no". This means that teachers are satisfied with their job/profession in which they intended to stay.

Table 5. Respondents' Employment Information
N = 93

Questions	Response	f	Percentage (%)
1. Are the respondents working while studying?	Yes	90	96.77
	No	3	3.23
Total		93	100%
2. Which one best describes the respondents current work position?	Working full-time	90	96.77
	Not working	3	3.23
Total		93	100%
3. How did the respondents come to know their current job?	Through friends	37	39.78
	Through relatives	38	40.86
	Through written inquiries	18	19.35
	Through advertisement in media	8	8.60
4. Is the respondents' degree earned from BISU provided the technical know-how of their job?	Yes	93	100
	No	0	0
Total		93	100%
5. How useful to the respondents' job the knowledge and skills learned from BISU?	Very much	75	80.65
	Much	17	18.28
	A little	1	1.08
	Not useful	0	0.00
Total		93	100%
6. How satisfied are the respondents with their current job?	Very much	78	83.87
	Much	15	16.13
	A little	0	0
	Not useful	0	0
Total		93	100%
7. Do the respondents intend to stay in their job?	Yes	91	97.85
	No	2	2.15
Total		93	100%

Table 6 reflects the respondents' employment status. The results disclosed that majority of the respondents are working in public with 89 or 95.70% and 4 of them are working in a private organization with 4.30%.

With regards to their job status, 97.85% or 91 respondents are working permanently and only 2.15% or 2 respondents are working temporarily. Majority of the MAED graduates are permanent or regular employees in their respective workplaces. This indicates that they enjoy all the benefits and privileges accorded to staff with regard to leave, retirement, and other fringe benefits and perks as may be bestowed by management.

Table 6. Respondents' Employment Status
N = 93

Items	Frequency	Percentage (%)
6.1. Type of Organization		
Private	4	4.30
Public	89	95.70
Total	93	100%
6.2. Job status		
Permanent	91	97.85
Temporary	2	2.15
Total	**93**	**100%**

Table 7 represents the level of contribution to the personal and professional growth of the respondents. It can be denoted that the level of contribution of the program that BISU offered to the personal and professional growth of the respondents are "very high" with an average weighted mean of 3.43. The teachers mostly agreed on item 14 with the highest weighted mean of 3.73 "very high". This implies that the degree they earned contributed greatly to their personality development.

While the item who had the lowest weighted mean of 2.61 which means "high" is item number 13 "Opportunity abroad". This means that even though teachers were having their master's degree, they still had a little chance of getting abroad.

Table 7. Respondents' Assessment on their Level of Contribution to the Personal and Professional Growth
N = 93

Statements	WM	VI
The Master's Degree program in BISU…		
enhanced my academic profession.	3.68	Very High
improved my problem-solving skills.	3.48	Very High
improved my research skills.	3.54	Very High
improved my learning efficacy.	3.57	Very High
improved my communication and interpersonal skills.	3.60	Very High
improved information technology skills.	3.45	Very High
enhanced team spirit and people skills	3.58	Very High
enhanced my present and future professional skills	3.58	Very High
exposed me to local community within field of specialization.	3.34	Very High
exposed me to international community within the field of specialization.	2.90	High
developed my critical thinking skills.	3.48	Very High
provided opportunity for salary increase and promotion	3.49	Very High
offers opportunity abroad.	2.61	High
developed my personality.	3.73	Very High
Average Weighted Mean	**3.43**	**Very High**

Legend:

Rating Scale	Verbal Interpretation	Weighted Mean (WM)
3.25 – 4.00	Very High (VH)	
2.50 – 3.24	High (H)	
1.75 – 2.49	Fair (F)	
1.00 – 1.74	Poor (P)	

On the other hand, table 8 reveals that the respondent's assessment of the program in BISU is very high with an average weighted mean of 3.44. Teachers agreed on item number 2 "Relevance of the program to the professional requirements" and item number 14 "Professor's knowledge of major subjects" with a weighted mean of 3.69. This infers that the respondents believed that the program offered by BISU-Candijay Campus has a great weight to their professional life. And the main reason of this is the professor's intelligence with regards to the subjects/course offered.

This table also details that item 11 "laboratory resources" got the lowest weighted mean of 3.02. Second on its rank is item number 12 "class size" with 3.03 as its weighted mean. This means that respondents agreed that some of the implemented program in the institution especially the class size and laboratory resources need to be well organized/improved.

Table 8. Respondents' Assessment on the Master's Degree Program in BISU-Cogtong Candijay Campus
N = 93

Statement	WM	VI
The master's Degree program in BISU…		
offers variety of subjects.	3.56	Very High
is relevant to the professional requirements.	3.69	Very High
involves me in extra-curricular activities.	3.26	Very High
develops my problem-solving skills.	3.49	Very High
provides premium given to research.	3.55	Very High
promotes interdisciplinary learning.	3.59	Very High
provides a conducive teaching and learning environment.	3.66	Very High
provides quality of instruction.	3.66	Very High
promotes good teacher-student relationship.	3.68	Very High
offers library resources.	3.16	High
offers laboratory resources.	3.02	High
limits class size.	3.03	High
renders good quality of infrastructure and facilities.	3.17	High
provides professors with knowledge of major subjects.	3.69	Very High
Average Weighted Mean	**3.44**	**Very High**

Table 9. Relationship Between the Respondents' Assessment on the Master's Degree Program and Its Level of Contribution to Personal and Professional Growth
N = 93

Master's Degree Program and…	r	p-value	Interpre-tation	Decision
Level of Contribution to Personal & Professional Growth	0.672	<0.001	Significant	Reject Ho

Table 9 illustrates the test of relationship between the respondents' assessment on the master's degree program and its level contribution to personal and professional growth. The result revealed that there is a significant relationship between the Master's Degree Program in Bohol Island State University-Cogtong Candijay Campus and the level of contribution to the respondents' personal and professional growth since the computed correlation value of 0.672 with the computed p-value of <0.001 which is less than 0.05 level of significance, thus the null hypothesis is rejected. This implies that Masters' degree program can greatly affect the personal and professional growth of the respondents. According to the NYU Graduate School of Arts and Science Journal, enhancing professional credentials or preparing for study at the doctoral level, a master's degree can be an essential part of the professional and personal development of a person.

CONCLUSIONS

In the light of the findings presented, the following conclusions are formulated by the researcher:

The result revealed that there is a significant relationship between the Master's Degree Program in Bohol Island State University-Cogtong Candijay Campus and the level of contribution to the respondents' personal and professional growth. The program offered by BISU-Candijay Campus have "Very Highly" contributed to their personal and professional growth particularly on personality development, enhancing academic profession and communication/interpersonal skills. However, there are some aspects of the program that the respondents rated low. This means that some of the respondents were not fully satisfied to some aspect of the curriculum. It only implies that there must be an improvement or changes to be done.

But overall, the graduates have rated the programs as Very High.

RECOMMENDATIONS

Based on the conclusions mentioned, the following recommendations are presented:

1. Bohol Island State University-Candijay Campus should continuously provide effective and high quality of education to the students.
2. The institution must have a limitation on the number of students/masterands per subject/ course area.
3. Enhance further its curriculum to ensure its relevance and responsiveness to the needs of the students especially the usage of laboratory and library resources.
4. Further research should be conducted to update the status of MAED graduates of Bohol Island State University-Cogtong, Candijay Campus.
5. Results from this study are intended to be used along with other institutional research information to strengthen the MAED curricula and improve the overall quality of BISU-Candijay Campus' Graduate School course offerings.

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THE LEARNING STYLE-PREFERENCES AND ACADEMIC PERFORMANCE OF STUDENTS IN THE SECONDARY SCHOOLS

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ABSTRACT

This descriptive-correlational study examined the relationship between the learning styles and academic performance of secondary school students in the fifth legislative district in the division of Isabela, Philippines. The 367 respondents were selected randomly at a 95% confidence level at a 5% percent margin of error. The standardized inventory instrument in the different learning styles offered by Kolb in his experiential learning theory (1984) was adopted to gather the learning styles of the respondents. The General Weighted Average Grade of the students in the last completed grading periods was requested to represent their academic performance. The study specifically aimed to determine the extent of preferences of secondary school students to the activist, reflector, theorists, and pragmatist learning styles; the academic performance of the respondents; and the relationship between the learning styles of the students and their academic performance. The following conclusions were derived from the findings: 1)The very strong preference learning style of the student respondents is dominated by the activist, followed by pragmatist, reflector, and theorist; 2) Reflector learning style is strongly preferred by the majority of the respondents followed by pragmatist, activist, and theorist; 3) The moderately preferred of the student-respondents is dominated by the activist learning style followed by the theorist and pragmatist, and reflector; 4) The least preferred learning style by the majority of the students is the theorist, followed by pragmatist, reflector, and activist; 5) Most of the students have very satisfactory academic performance, followed by outstanding and satisfactory; 6) There is a weak negative relationship between the activist and theorist learning styles and the academic performance of the student-respondents. The magnitude of the correlation is not enough to make a prediction; 7) There is a very strong positive relationship between reflector learning style and the academic performance of the student-respondents. The students' strong preference for this learning style can improve their academic performance; 8) Pragmatist learning style and student-respondents' academic performance has no significant relationship. The extent of preference of the students for this learning style does not affect their academic performance.
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Keywords: enhancement of learning, learner-centered teaching, learning style-preferences, experiential learning, academic performance

INTRODUCTION

The learners are the center of any educative process. Before considering the different instructional models, strategies, approaches, and teaching styles, the students should be the topmost priority in all educational and instructional decision making. It requires the teachers to be aware of the uniqueness of the learners' background, interest capacities, talents, interests, and needs. More specifically, in the teaching-learning process, the teachers to be effective facilitators must understand enough how the learners learn or their learning styles. The term Learning style is the different methods of learning or understanding new information, the way a person takes in, understands, expresses, and remembers information. It is the manner and the conditions under which learners most efficiently and effectively perceive, process, store, and recall what they are attempting to learn

(Choudhary et al., 2011). It speaks to the understanding that every student learns differently (Hawk & Shah, 2007; Wilson & Peterson, 2006;) and that every learner has a unique learning style.

The teachers' adequate understanding of the learning styles of the students can lead them in the intelligent selection of more appropriate teaching strategies or combining several teaching approaches to accommodate the diversities of the learning style of the learners. This learner-centered educational perspective has gained widespread recognition in the country's educational management and instructional practices. It is nowadays the orientation both in the preservice education and training for future educators and in the in -service professional development training for the teachers.

Based on the learner-centered philosophy of teaching, the teachers need to think about their learners' characteristics, particularly their learning styles, to promote effective learning (Ozerem & Akkoyunlu, 2015). Moreover, understanding the students' learning styles can guide them to implement best practice strategies into their teaching, design a learning environment (Ozerem & Akkoyunlu, 2015), and administer appropriate assessments all for continuous enhancement of learning. Specifically, the teachers' knowledge about how their students learn influences their decision making in their instructional tasks. Instructional tasks are informed by beliefs about the overall purpose of schooling, what should be taught as the curriculum, and the process of learning.

It is always been a concern in the education sector the improvement of the students learning. Students learning outcome reflects their academic performance. Enormous studies have a focus on investigating factors that influence the students' academic performance. One factor that is a link to academic performance is the students' learning style preferences. Further, studies confirm that learning styles predict students' academic performance (Magulod, 2019). Concerning the ultimate purpose of improving instruction and raising students' academic performance, the Department of Education designs different intervention programs. These programs particularly focus to upgrade and update the teachers' knowledge and skills in facilitating teaching-learning processes. One of these programs is the In-Service Training which usually conducts twice a year, once during summer and the semester break. Another program of the department is the implementation of the School Learning Action Cell (SLAC), a school-based continuing professional development strategy that aims to improve the teaching-learning process that will lead to improved learning among the students; to nurture successful teachers; to enable teachers to support each other to continuously improve their content and pedagogical knowledge, practice, skills, and attitudes; and to foster a professional collaborative spirit among school heads, teachers, and the community as a whole. Analyzing the relationship between the students' learning style preferences and academic performance will provide learner-centered information to teachers which helps in identifying and designing training topics during the School-based Action Learning Cell session.

This study on students' learning style preferences is anchored on Kolb's definition of learning as the process whereby knowledge is created through the transformation of experience and the definition of Learning style as the typical ways in which individuals gather, organize, and change data into useful and meaningful information (1984). This learning style theory describes learning in four stages of a cycle: concrete experiencing, reflective observation, abstract conceptualization or thinking, and active experimentation.

OBJECTIVES OF THE STUDY

This study generally aimed to examine the relationship between the learning styles and academic performance of students in the secondary schools in the fifth legislative district of the division of Isabela, Philippines.

Specifically, it sought to answer the following questions:

1. What is the strength of preferences of the students in each of the following learning styles?
   a. Activist
   b. Reflector
   c. Theorist
   d. Pragmatist
2. What is the academic performance of the secondary student-respondents?
3. What is the relationship between the students' learning style preferences and their academic performance?

REVIEW OF LITERATURE

Various learning style models have been introduced in the field of education for the last decades. These are based on the idea of individual

learning differences. One of the most considered and acknowledge learning style models by educators and academicians in understanding learning behavior is Kolb's learning style model which is based on his experiential learning theory (Kolb, 1984). Much of this theory is concerned with the learner's internal cognitive processes. Kolb's Learning Style Inventory is based on four-stage experiential learning: (1) concrete experience, (2) reflective observation, (3) abstract conceptualization, and (4) active experimentation (Harris et al., 2006). From these four-stage learning cycle, Kolb sets out four separate learning styles Mcleod (2013) for which he used the terms: diverging (the combination of concrete experience and reflective observation learning styles); assimilating (the combination of abstract conceptualization and reflective observation learning styles); converging (the combination of abstract conceptualization and active experimentation learning styles) and accommodating (the combination of concrete experience and active experimentation).

Several studies showed the connection between learning styles and the academic performance of students. A study on the influence of learning style on academic performance among science education undergraduates conducted by (Nja et al., 2019) presented that learning styles affect student's academic performance. The study concluded that the students have multiple learning styles, and no one learning style is self-sufficient for students' academic performance. The best combination is audio-visual learning styles. When students have knowledge of their learning style preferences and harness their various learning styles, it may improve their academic performance. Barman et al. (2014); Dalmolin et al. (2018); Magulod (2019) concluded that there is a positive connection between learning styles and the academic performance of students. Fatemeh and Camellia (2018) revealed that students prefer learning with divergent learning styles, as it enhances their academic achievement. Barman et al. (2014) further concluded that students' knowledge of their learning style could improve their academic performance. Similarly, Alavi and Toozandehjani (2017) concluded that the learning styles of students could enhance their learning. These studies proved that in every school environment, be it primary, secondary, or tertiary institutions, the academic performance of students is a pointer to the quality of learning experiences. In the study conducted by Yin Khoo Yin et al. (2014) (2014) on the learning styles and perception of international students of the Universiti Pendidikan Sultan Idris (UPSI) in Malaysia, they reported that international students have different learning styles. However, global learners, verbal learners, and reflective learners shared the same highest score compared with others. The researchers suggested that a combination of traditional lecture and student-centered teaching methods would be suitable for the international students' learning style.

METHODOLOGY

The study utilized the descriptive-correlational method of research to determine the relationship between the learning styles of secondary school students and their academic performance. A total of 367 randomly selected students from selected schools in the fifth legislative district in the division of Isabela were the respondents of the study. The representation of the student-respondents was taken at a 95% confidence level at a 5% percent margin of error.

The instrument of the study

The standardized inventory instrument in the different learning styles offered by Kolb in his experiential learning theory (1984) was adopted to gather the learning styles of the respondents. This learning style inventory instrument continues to be influential in the field of education (Brew, 2002) and has been utilized in several studies (Boggu, 2016). The instrument concentrates on the learning styles preferred by the students covers the four types of learning styles: activist; reflector; theorist; and pragmatist. The inventory instrument was validated by the experts before it was administered to the respondents.

The total scores for the learning styles of the student-respondents below determined their strength of preference.

Table 1. Preferred Learning Styles Scoring

Activist	Reflector	Theorist	Pragmatist	Description
13-20	18-20	16-20	17-20	Very strong preference
11-12	15-17	14-15	15-16	Strong preference
7-10	12-14	11-13	12-14	Moderate preference
4-6	9-11	8-10	9-11	Low preference
0-3	0-8	0-7	0-8	Very low preference

For the academic performance, the researchers requested the general average grade of the student-respondent from the teachers with the permission of the Schools Division Superintendent of Isabela and the School heads. The following grad-

ing scale and descriptors were adopted from the Department of Education to describe the academic performance of the student- respondents.

Table 2. Academic Performance Description

Descriptor	Grading scale
Outstanding	90-100
Very Satisfactory	85-89
Satisfactory	80-84
Fairly Satisfactory	75-79
Did not meet the expectation	Below 75

Statistical tool

The statistical tools used to interpret the data gathered were frequency counts and percentages to describe the learning style preferences and academic performance of the respondents, and Pearson r correlation was used to determine the relationship between the student-respondents' learning styles and their academic performance.

FINDINGS

Learning Styles of Student-Respondents

Table 3 presents the frequency and percentage distribution of the learning style strength of preferences of student-respondents.

The table shows that the greatest number (134 or 36.51%) of the students who scored a very strong preference fall under the activist learning style. These students learn best when they do practical tasks and engage with various activities. They mostly favored emphasizing new experiences; focusing on the present; doing games, solving a problem, and doing simulations; doing a lot of action and excitement; leading and be in the limelight; generating ideas without any concern about practical constraints; and responding to a challenge and taking risks. Activist learning style is also moderately preferred by 117 or 31.88% of student-respondents. This is the learning style least preferred by the least number of student-respondent (15 or 4.09%)

Reflector learning style is strongly preferred by one hundred twenty (32.70%) of the student-respondents. These students learn better when they have lots of breaks to go off to read and discuss; learn best from activities where there are opportunities to observe and consider; there is a strong element of passive involvement such as listening to a speaker or watching a video; there is time to think before having to act or contribute; there is an opportunity for research and problems can be probed in some depth; they can review what was happening; they are asked to produce reports that carefully analyze a situation or issue; there is interaction with others without any risks of strong feelings, and they can finalize a view without being put under pressure.

Theorist learning style is moderately preferred by one hundred five (28.61%) student-respondents. These theorists students want handouts, something to take away and study and learn best from activities where learning forms a part of a conceptual whole, such as a model for a theory; exploring the interrelationship amongst elements; exploring the theory and methodology underlying the subject under investigation; they are intellectually stretched; a clear and obvious purpose to the activities is emphasized; relying on rationality and logic; analyzing situations and then generalize their findings, and asking to understand complex situations. Interestingly, the theorist is the learning style which has the least number (42 or 11.4%) of students who preferred it very strongly and it is least preferred by the majority of the respondents.

Likewise, the pragmatist learning style is moderately preferred by one hundred four (28.34%) student-respondents. These pragmatist-students want shortcuts and tips and they learn best from activities where there is a clear link back to some job-related problem; the material is directed towards techniques that make their work easier; they can practice what they have learned; they can relate to a successful role model; there are many opportunities to implement what has been learned; the relevance is obvious and the learning is easily transferred to their jobs, and what is done is practically such as drawing up action plans or trialing techniques or procedures.

Table3. Learning Style Preferences of the Student-Respondents

Scores	Frequency n-367	Percent 100
Activist		
13-20 (Very Strong Preference)	134	36.51
11-12 (Strong Preference)	61	16.62
7-10 (Moderate Preference)	117	31.88
4-6 (Low Preference)	40	10.90
0-3 (Very Low Preference)	15	4.09
Reflector		
18-20 (Very Strong Preference)	44	11.99
15-17 (Strong Preference)	120	32.70
12-14 (Moderate Preference)	96	26.16
9-11 (Low Preference)	54	14.71
0-8 (Very Low Preference)	53	14.44
Theorist		
16-20 (Very Strong Preference)	42	11.44
14-15 (Strong Preference)	39	10.63
11-13 (Moderate Preference)	105	28.61

8-10 (Low Preference)	81	22.07
0-7 (Very Low Preference)	100	27.25
Pragmatist		
17-20 (Very Strong Preference)	52	14.17
15-16 (Strong Preference)	64	17.44
12-14 (Moderate Preference)	104	28.34
9-11 (Low Preference)	72	19.62
0-8 (Very Low Preference)	75	20.44

Academic Performance of the Student-Respondents

Table 4 shows that majority of the student-respondents have a very satisfactory academic performance who obtained an average grade ranging from 85-89 followed by students with outstanding academic performance who have an average grade of 90-100 then students with satisfactory academic performance with a general weighted average grade of 81-84.

Table 4. Frequency and Percentage Distribution of Academic Performance of Respondents

General Average	Academic Performance Description	f	%
81 – 84	Satisfactory	46	12.53
85 – 89	Very satisfactory	176	47.96
90 – 100	Outstanding	145	39.51

Relationship between the Learning Styles of the Student-Respondents and their Academic Performance

Table 4 indicates the relationship between the learning styles of the student-respondents and their academic performance. It reveals that all the learning styles except for pragmatists are significantly related to the academic performance of the student-respondents.

Activist learning style has a computed correlation coefficient of -013 significant at the 0.00 p-value which indicates a weak negative correlation. Although the negative correlation is small and statistically not significant to make a prediction, this suggests that the more the students preferred activist learning style they tend to obtain lower academic performance. This learning style is characterized by more preferring of learners to concrete, practical exciting learning activities such as games, simulations, and solving practical problems in which they do a lot of action and excitement. The slight adverse relationship between this learning style and the student-respondents' academic performance can be explained by the mismatched nature of this learning style and the traditional paper-pencil test that is still dominating the classroom assessments in secondary schools. It should be noted that the results of the classroom assessment practice in the classrooms are most expected the main source of the grade of the students which represent their academic performance describe in this study.

Similarly, the theorist learning style obtained a -0.19 correlation coefficient significant at 0.00 p -value which denotes a weak negative relationship. This somewhat implies, that the more the student-respondent preferred the theorist learning style, they tend to have lower academic performance. Mostly, the theorist learning style is favoring learning activities that promote abstract conceptualization which requires exercising higher-order thinking skills such as analyzing, evaluating, and synthesizing skills. Again, the nature of this learning style can be misaligned with the existing classroom assessments as well as in the teaching processes conducted in the classrooms

Conversely, the reflector learning style has a very strong positive correlation coefficient of 8.39 significant at a 0.00 p-value. The computed correlation coefficient has enough magnitude to be utilized in making a prediction. Clearly, the more the respondents preferred reflector learning style, they are most likely to have a higher academic performance. Specifically, the more the students engaged freely and without pressure in reflective learning activities such as listening to lectures, watching videos, reading, thinking and discussing, probing problems, doing researches, analyzing situations, the more they are likely to perform better academically.

Lastly, the pragmatist learning style is found to have no significant relationship to the academic performance of the respondents with a computed correlation coefficient of -0.08 and a p-value of 0.12. It could be inferred from this result that the strength of student-respondents' preference for this learning style does not affect their academic performance.

Table 4. Relationship between Learning Styles and Academic Performance

Learning Styles	Academic Performance	
	τ -value	p-value
Activist	-0.13*	0.00
Reflector	8.39*	0.00
Theorist	-0.19*	0.00
Pragmatist	-0.08^{ns}	0.12

* Significant ns Not Significant

CONCLUSIONS

Based on the findings of the study, the following conclusions were derived:

1. The very strong preference learning style of the student respondents is dominated by the activist, followed by pragmatist, reflector, and theorist.
2. Reflector learning style is strongly preferred by the majority of the respondents followed by pragmatist, activist, and theorist.
3. The moderately preferred learning styles of the student-respondents is dominated by the activist followed by the theorist and pragmatist; and reflector.
4. The least preferred learning style by the majority of the students is the theorist, followed by pragmatist, reflector, and activist.
5. For the academic performance of the student-respondents, most have very satisfactory academic performance, followed by outstanding and satisfactory.
6. There is a weak negative relationship between the activist and theorist learning styles and the academic performance of the student-respondents. The magnitude of the correlation is not enough to make a prediction.
7. There is a very strong positive relationship between reflector learning style and the academic performance of the student-respondents. The students' preference for this learning style can improve their academic performance.
8. Pragmatist learning style and student-respondents' academic performance has no significant relationship. The extent of preference of the students to this learning style does not affect their academic performance.

RECOMMENDATIONS

The results of the study suggested the following for consideration:

1. The teachers can capitalize on the dominating very strong preference activist learning style of the students to improve and make the teaching processes more interesting and relevant to students' interests and needs.
2. Varieties of teaching and learning activities can be applied and/or integrated into the planning and preparation of instructional materials such as learning plans and modules to cater to the multiple learning preferences of the students.
3. The teachers continue to enhance students learning and academic performance by planning and innovating appropriate learning tasks and activities wherein the students can improve and develop learning styles or multiple learning styles that can enhance their learning.
4. Since students' preference for reflector learning style can improve their academic performance, the teachers can provide reflective learning activities to students aligned to the learning competencies and classroom assessments.
5. The school heads in the secondary schools may propose the inclusion of topics on activist, theorist, reflector, and pragmatist learning styles, utilization of multiple teaching approaches, and incorporation or integration of varieties of learning activities in the preparation of instructional materials, and alignment of the students' learning styles to teaching and assessment processes during the planning and conducting of in-service training or school-based learning action cell.

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SCHOOLS' SUPPORT SERVICES IN RELATION TO STUDENTS LEVEL OF SATISFACTION AND ACADEMIC ACHIEVEMENT

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ABSTRACT

This study aimed to determine the adequacy of the secondary schools' student support services and the level of satisfaction felt by the junior high school students in relation to students' academic achievements of Candijay, Alicia, Mabini, Anda, and Guindulman (CAMAG) Districts. This study utilized the descriptive method with the aid of a modified questionnaire as the main data gathering instrument. The result revealed that there is no significant relationship between the students' academic achievement and the level of satisfaction on school support system. The students' level of satisfaction on the school support system does not affect their academic achievement in school. In the test of correlation between the respondents' level of adequacy and the level of satisfaction on the school support system. The result has shown that the level of adequacy of the school support system is significantly associated to the students' level of satisfaction on the school support system. The result of the study denotes that the level of adequacy of the school support system greatly influence students' level of satisfaction. The greater the support from the school, the more satisfied the students are. Based on the results, the researcher suggested that every secondary schools should have nurses to cater the needs of the students. In addition, there shall be an item position for guidance counselors in every secondary schools. Likewise, school administrators shall allocate budget for internet connection and hiring of additional security guards using the school MOOE and other local school funds.

Keywords: Academic Achievement, Level of Achievement, Level of Adequacy, Level of Satisfaction and Student Support Services

Introduction

Increasing enrollment, shortages of classrooms, numerous learners' behavior, lack of school facilities, and increased competition are apparently a number of the foremost vital problems that public secondary schools are faced with. With the onset of those challenges, it's become essential for public secondary school to form quality education a high priority on varied levels starting from educational to social. So as to form this as priority, it is vital for schools to monitor how successful the services that are offered in aiding students with the completion of their instruction.

Various policies are framed from time to time to uplift the standard of education. Giving support to students including social and emotional support along with academic support brings awareness in students and might facilitate lots in enhancing the standard of education. Student motivation to graduate or student loyalty to a school institution is another educational performance indicator that directly influences student behavior. If students understand that a faculty isn't acting in their best interest (Hartman & Schmidt, 1995), or that the standard of programming is poor (Thayer, 2000), then they're less motivated to graduate from that institution.

This concern mandated institutions to raise the standard by making the system efficient, effective relevant and responsive to the needs of the learners who belong to the present modern society. To address these issues concerning quality education, DepEd strives its best to conceive this idea by strengthening its whole system so that they can work even better towards improving the quality education. As much as DepEd endeavored through these years to maintain its quality of instruction, it likewise, has to provide efficient student support to effectively produce a wholesome

learning environment and atmosphere for the students.

The result of the study would hopefully determine the efficiency of the student support system of the Department of Education not only in Mabini district but in the entire country and become then, the benchmark for the school administration to attend to the needs of the students as support to their learning conditions.

The findings would become the bases for the researcher to propose strategies and measures to correct the identified deficiencies and weaknesses.

RELATED LITERATURE

Many aspects of student life, on an instructional, social or cultural level, become harder to know and manage with a population that finds itself in an exceedingly state of continual growth and diversification (Audin & Humphrey Davy, 2003). To the present impact, the creation of economical student services that are centered on its necessities, so as to supply the desired support for educational activity and stimulate personal, social, cultural and psychological feature development, is needed. Student Support Services (SSS) are a cluster of facilities and activities that are provided to make the learning process easier and more interesting for the learner. They serve as the interface between the institution and the learner. The good quality of public secondary education depends directly on the student support services provided in various modes of education. If schools are deficient in providing support to their students, then it does not serve the purpose of education (S. Kaur, 2016).

The said theory of learning is legally supported by the provision found in Article XIV Section 2 in the 1987 Constitution of the Republic of the Philippines states that the State shall establish, maintain, and support a complete, adequate, and integrated system of education relevant to the needs of the people and society and in Section 10 which states that the State shall give priority to research and development, invention, innovation, and their utilization; and to science and technology education, training, and services. It shall support indigenous, appropriate, and self-reliant scientific and technological capabilities, and their application to the country's productive systems and national life. Hence, The K to 12 Program in the Philippines was enacted into law on May 15, 2013, through Republic Act 10533, otherwise known as the Enhanced Basic Education Act of 2013. The effort is an act of legislation, putting in place the K to 12 Curriculum, so that the Philippine Basic Education becomes competitive at par with other countries. Generally, this study is also supported by TESDA Act of 1994 also known as the "Technical Educational and Skills Development Act of 1994" .It is in Section 2 hereby declared the policy of the State to provide relevant, accessible, high quality and efficient technical education and skills development and shall encourage active participation, being direct participants and immediate beneficiaries of a trained and skilled work force in providing technical education and skills development opportunities.

Student support and services contribute to the quality of their learning experience and their educational success. Studies show that the most important factors in education quality assurance are: quality of teaching /learning and service systems and support for students (Hill et al, 2003). Therefore, the importance of support activities for the students is clear, however, the management of services is having difficulties because of the increasing number of students and their needs.

Student Support Services facilitate to decrease the school dropout rate and increase the range of students' experience. (Tinto, 1993). While not effective student services, students that don't have a tutorial, emotional and social connection to the school are more likely to give up their studies.

In connection to this, Tiempo (2018) said that the schools should conduct a regular assessment of the status of the student support services if global learning and quality graduates are to be desired.

An important role of student services is to organize students for active participation in society. Together with teachers and non-governmental organizations they contribute to accumulated learning opportunities and community involvement by organizing or promoting internships, experiential units or short experiences, integrated into the curricula (UNESCO, 2002).

Among the services offered to students, the most important are those that meet their tutorial, personal development and emotional needs (McInnis, 2004). Studies have shown that a discrepancy exists between the varied services for secondary students formally declared and their accessibility and practical use (Dhillon, McGowan and Wang, 2006).

According to Kolb (1984), experiential learning is the process whereby knowledge is created through the transformation of experience. A four-stage cyclical theory of learning, Kolb's experien-

tial learning theory is a holistic perspective that combines experience, perception, cognition, and behavior. Kolb views learning as an integrated process with each stage being mutually supportive of and feeding into the next. It is possible to enter the cycle at any stage and follow it through its logical sequence. However, effective learning only occurs when a learner can execute all four stages of the model. Therefore, no one stage of the cycle is effective as a learning procedure on its own. Experiential learning can be good for helping people explore their own strengths when learning new things. The theory addresses how learners can play to their own strengths as well as developing areas in which they are weakest. In Kolb's theory, the impetus for the development of new concepts is provided by new experiences.

The fundamental principle of the Zone of Proximal Development (ZPD) by Vygotsky (1978) explains as to the difference between what a learner can do without help and what he or she can achieve with guidance and encouragement from a skilled partner. It opened doors for others to work on the field ensuring learners' success in moving from guided to independent display of knowledge, understanding, and skills and to enable them to transfer this successfully in future situations. From this point of view, the development of learners' higher-order thinking and 21st century skills are highly facilitated. Apparently, Vygotsky's interest in the child's potential for intellectual growth led him to develop the concept of the zone of proximal development. Skills too difficult for a child to master on his/her own, but that can be done with the guidance and encouragement from a knowledgeable person. In recent years this concept has led to the use of scaffolding, an instructional process in which the teacher adjusts the amount and type of support offered to the child to suit the child's abilities, withdrawing support as the child becomes more skilled. He further stated that when an adult provides support for a child, they will adjust the amount of help they give depending on their progress. There are two levels of attainment for the ZPD. First, the present level of development describes what the child is capable of doing without any help from others and then, the potential level of development which means what the child could potentially be capable of with help from other people or teachers. Vygotsky believed that when a student is in the ZPD for a particular task, providing the appropriate assistance will give the student enough of a "boost" to achieve the task.

Consistently, John Dewey's learning by doing theory represents different intellectual abilities. Learning styles, according to Dewey (1938) was wary of placing too much emphasis on the child's abilities, but preferred to place his trust in a more balanced approach to education where teacher, students and content were given equal importance in the learning equation. Ultimately, his belief was that teachers should not be in the classroom to act simply as instructors, but should adopt the role of facilitator and guide, giving students the opportunities to discover for them and to develop as active and independent learners. In some schools, a return to these values is long overdue. As Dewey states, learning by doing is based on three assumptions, that people learn best when they are personally involved in the learning experience; knowledge has to be discovered by the individual if it is to have any significant meaning to them or make a difference in their behavior; and a person's commit Learning by doing (or experiential learning) is based on three assumptions, that people learn best when they are personally involved in the learning experience; knowledge has to be discovered by the individual if it is to have any significant meaning to them or make a difference in their behavior objectives and are able to actively pursue them within a given framework.

OBJECTIVES

The specific objectives of the study are:

1. What is the profile of the respondents in terms of:
   1.1 age;
   1.2 sex;
   1.3 grade level; and
   1.4 general weighted average?
2. What is the level of adequacy of the school's support services in terms of:
   2.1 student welfare;
   2.2 learning center / library;
   2.3 health/medical/dental;
   2.4 laboratories (sciences);
   2.5 laboratories (THE-HE);
   2.6 ICT/ internet;
   2.7 guidance and counseling;
   2.8 security; and
   2.9 Co-curricular activities?
3. What is the level of satisfaction of the student -respondents toward the school support services in terms of:

3.1 student welfare support;
3.2 learning center/library;
3.3 health/medical/dental;
3.4 laboratories (sciences)
3.5 laboratories (THE-HE)
3.6 ICT/internet
3.7 guidance and counseling
3.8 security; and
3.9 co-curricular activities?

RESEARCH METHODOLOGY

Design

This study utilized the descriptive survey method with the aid of a modified questionnaire as the main data gathering instrument. The descriptive method is most appropriate because it is used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation". A descriptive research is directed towards the ascertainment of prevailing conditions and involves essentially a quantitative description of the general characteristics of a group.

Environment and Participants

The study was conducted in the selected public secondary schools of Candijay, Alicia, Mabini, Anda and Guidulman (CAMAG) districts. These districts are located at the Eastern part of Bohol and is part of the Third Congressional District of Bohol. There are 5 secondary schools in Candijay, 4 secondary schools in Alicia, 2 secondary schools in Mabini, 3 secondary schools in Anda and 3 secondary schools in Guindulman respectively. There are 635 total number of respondents wherein 105 respondents are coming from Guindulman, 105 from Anda, 110 from Mabini, 140 from Candijay, and 175 from Alicia district.

Instrument/Tool

The present study adopted the questionnaire designed by (Tiempo, A.S. 2018) to measure the student's judgment on the level satisfaction on the students support services and the level of efficiency.

A random sampling technique was used in conducting the study. The questionnaire used the 4-point Likert scale. To each item, the students were asked to rate the quality of the various student support and administration services afforded to them.

The qualitative scales used were the following:

Degree	Meaning	Equivalent
A. Level of Adequacy		
Very Adequate (VA)	Has met more than the expectation	4
Adequate (A)	Has just met the needs of the students in most cases	3
Less Adequate (LA)	Has fell short of the needs of the students	2
Not Adequate (NA)	Has not met with the needs	1
B. Level of Satisfaction		
Very Satisfied (VS)	Has served beyond expectation	4
Satisfied (S)	Has met expectation	3
Moderately Satisfied (MS)	Has fell short of the needs of the students	2
Not Satisfied (NS)	Has not met with the standards	1

On questionnaire for the teacher's profile. An instrument used to gather the personal information. It covers age, sex, Grade Level and General Weighted Average of the respondents.

On questionnaire for the student's level of adequacy of the schools' support services. An instrument used to gather the personal judgement. It covers student welfare, learning center/library, health/medical/dental, laboratories (any sciences), laboratories (THE-HE), ICT/internet, guidance and counseling, security, and co-curricular activities.

On questionnaire for the student's level of satisfaction of the schools' support services. An instrument used to gather the personal judgement. It covers student welfare, learning center/library, health/medical/dental, laboratories (any sciences), laboratories (THE-HE), ICT/internet, guidance and counseling, security, and co-curricular activities.

Data Gathering Procedure

The researcher asked permission from the Schools Division Superintendent of Bohol Division through a letter noted by the Dean of the College of Advanced Studies (CAdS) to conduct this study. Upon approval of the superintendent, the researcher also requested permission from the Schools District Supervisor and school heads. The respondents were given one day to accomplish the forms and returned on an agreed date.

The researcher personally administered the questionnaires to the Grade 7 students to Grade 10 students with help of the teachers and explained the objectives of the study to come up with the reliable and accurate responses and a hundred percent retrieval of the copies.

Data Analysis

The data gathered were analyzed and interpreted through projection and deduction inferred from the percentages.

THE FINDINGS

Table 1. Profile of the Respondents
N=635

1.1 Age	Frequency	Percentage (%)
12-13 years old	236	37.16%
14-15 years old	354	55.75%
16-17 years old	41	6.46%
18 years old and above	4	0.63%
Total	**635**	**100%**
1.2 Sex		
Male	208	32.76%
Female	427	67.24%
Total	**635**	**100%**
1.3. Grade Level		
Grade 7	147	23.15%
Grade 8	159	25.04%
Grade 9	164	25.83%
Grade 10	165	25.98%
Total	**635**	**100%**
1.4 General Weighted Average		
Outstanding (90-100)	285	44.88%
Very Satisfactory (85-89)	199	31.34%
Satisfactory (80-84)	131	20.63%
Fairly Satisfactory (75-79)	17	2.68%
Did Not Meet Expectations (Below 75)	3	0.47%
Total	**635**	**100%**

Table 1 shows the profile of respondents in terms of age, sex, grade level and general weighted average. The data gathered revealed that the respondents at age 14-15 years old ranks first at 55.75%, and age 18 years old and above ranks fourth at 0.63%. Based on the data collected as to the sex of the respondents, females outnumbered males as there are 427 or 67.24% females while 208 or 32.76% males. This entails that most of the students are female. . It can be gleaned also that for the school year 2018-2019, more than 44% of the students have 90-100 general weighted average with a verbal interpretation of "Outstanding" while 75 and below "Fairly Satisfactory" got the lowest percentage to 0.47% respectively. This means that not all of them meet the expectations relative to their academic achievement.

Table 2. Level of Adequacy of Schools Support Services for Students
N=635

Items	WM	DI
STUDENT WELFARE:		
AGAK	2.53	A
School Supplies	2.78	A
Alternative Delivery Mode (ADM)	2.44	LA
Average Weighted Mean (AWM)	**2.76**	
LEARNING CENTER/LIBRARY:		
Copies of Reference Books	3.03	A
Library Hall/Area	3.05	A
Recent/New Edition of References	2.79	A
Services Rendered to the Students	2.77	A
Average Weighted Mean (AWM)	**2.91**	
HEALTH/MEDICAL/DENTAL:		
Free Vaccination	3.05	A
Medical Doctor/Dentist/Nurse	2.77	A
Medicines/First Aid	3.12	A
Services or Treatment Rendered	2.80	A
Average Weighted Mean (AWM)	**2.93**	
LABORATORIES (Any Sciences):		
Laboratory Rooms	2.90	A
Laboratory Tools and Equipment	2.92	A
Chemicals	2.51	A
Average Weighted Mean (AWM)	**2.78**	**Adequate**
LABORATORIES (THE-HE):		
Home Furniture	2.79	A
Appliances	2.97	A
Home/Cooking Utensils	3.01	A
Average Weighted Mean (AWM)	**2.78**	**Adequate**
ICT/INTERNET:		
Computer Rooms/Center	3.33	VA
Computer Units	3.18	A
Internet Connections	2.46	LA
Services Rendered	2.71	A
Average Weighted Mean (AWM)	**2.92**	
GUIDANCE AND COUNSELING:		
Guidance Office	3.10	A
Special Counseling Room	2.66	A
Designated Guidance Counselor	2.98	A
Services Rendered	2.95	A
Average Weighted Mean (AWM)	**2.91**	
SECURITY:		
Maintenance of School Peace and Order	3.09	A
Number of Security Guards	2.79	A
Disciplinary Measures/Rules	3.18	A
Average Weighted Mean (AWM)	**3.02**	
CO-CURRICULAR ACTIVITIES:		
Sports	3.20	A
Student Organization	3.17	A
Literary-Musical Related Contests	2.96	A
Average Weighted Mean (AWM)	**3.11**	

Table 2 shows the level of adequacy of schools' support services to students. As to student welfare, result revealed that the provision of school supplies is adequate. As to Learning Center/Library, it revealed that most of the schools have adequate learning centers and libraries such as but not limited to copies of reference books, library hall/area, new edition of references and services rendered to the students. On the other hand, health, medical, and dental services in school shows that there is an adequate supply of basic medicines and first aid, medical doctors, dentists and nurses, free vaccination and treatment rendered to students and other school personnel.

As to laboratories (any sciences) shows that laboratory rooms, laboratory tools and equipment, and chemicals are adequate in school. On the other hand, laboratories (THE-HE) shows that the presence of home/cooking utensils ranked first with weighted average of 3.01 while home furniture ranked third with weighted mean of 2.79. On the aspect of ICT/internet, it revealed that computer rooms have a weighted average of 3.33 with a verbal interpretation of "Very Adequate". The presence of computer units with general weighted average of 3.18 and the services rendered to students with 2.71 general weighted average are adequate. In contrast, internet connections are having 2.46 general weighted average with verbal interpretation of "Less Adequate". Under guidance and counseling, it shows that guidance office has 3.10 general weighted average, designated guidance counselor has 2.98 and special counseling room has 2.66. Based on data, guidance and counseling services in school is adequate.

As to security, disciplinary measures/rules have general weighted average of 3.18 with a verbal interpretation of "adequate". The maintenance of school peace and order is also adequate with a general weighted average of 3.09. Likewise, the number of security guards is also adequate whose general weighted average is 2.79. For the co-curricular activities, data revealed that sports in school have 3.20 general weighted average with a verbal interpretation of "adequate" and student organization has 3.17 general weighted average with a verbal interpretation "adequate". Furthermore, the literary-musical related contests wherein some of the students are engaged in have 2.96 general weighted average and also have a verbal interpretation of "adequate".

Table 3. Level of Satisfaction of the Students on the Schools Support Services
N=635

Items	WM	DI
STUDENT WELFARE:		
AGAK	2.53	S
School Supplies	2.78	S
Alternative Delivery Mode (ADM)	2.44	S
Average Weighted Mean (AWM)	**2.58**	
LEARNING CENTER/LIBRARY:		
Copies of Reference Books	2.96	S
Library Hall/Area	2.95	S
Recent/New Edition of References	2.76	S
Services Rendered to the Students	2.72	S
Average Weighted Mean (AWM)	**2.85**	
HEALTH/MEDICAL/DENTAL:		
Free Vaccination	2.67	S
Medical Doctor/Dentist/Nurse	2.64	S
Medicines/First Aid	3.10	S
Services or Treatment Rendered	2.82	S
Average Weighted Mean (AWM)	**2.81**	
LABORATORIES (Any Sciences):		
Laboratory Rooms	2.82	S
Laboratory Tools and Equipment	2.89	S
Chemicals	2.45	S
Average Weighted Mean (AWM)	**2.72**	
LABORATORIES (THE-HE):		
Home Furniture	2.79	S
Appliances	2.97	S
Home/Cooking Utensils	3.01	S
Average Weighted Mean (AWM)	**2.72**	**Satisfied**
ICT/INTERNET:		
Computer Rooms/Center	3.34	VS
Computer Units	3.15	S
Internet Connections	2.43	S
Services Rendered	2.78	S
Average Weighted Mean (AWM)	**2.89**	
GUIDANCE AND COUNSELING:		
Guidance Office	3.00	S
Special Counseling Room	2.63	S
Designated Guidance Counselor	2.81	S
Services Rendered	2.78	S
Average Weighted Mean (AWM)	**2.81**	**Satisfied**
SECURITY:		
Maintenance of School Peace and Order	3.09	S
Number of Security Guards	2.79	S
Disciplinary Measures/Rules	3.18	S
Average Weighted Mean (AWM)	**3.02**	**Satisfied**
CO-CURRICULAR ACTIVITIES:		
Sports	3.14	S
Student Organization	2.94	S
Literary-Musical Related Contests	2.92	S
Average Weighted Mean (AWM)	**3.00**	

Presented in table 3 is the Level of Satisfaction of the Students on the School Support Services. On Student Welfare, it was found out that 2 "School Supplies" got the highest rank with a weighted mean of 2.78.

However, item number 3 "Alternative Delivery Mode (ADM)" got the lowest rank with a weighted mean of 2.44. Both are described as satisfied respectively. Learning Center/Library, based on the computation, item number 1 "Copies of Reference Books" got the highest rank with a weighted mean of 2.96. On the other hand, item number 4 "Services Rendered to the Students" got the lowest rank with a weighted mean of 2.72.

Health/Medical/Dental. The computation displays that item number 3 "Medicines/First Aid" has a weighted mean of 3.10 which makes it ranked as number 1.

On the contrary, item number 2 "Medical Doctor/Dentist/Nurse" has the lowest weighted mean of 2.64 that makes it ranked as number 4.

Laboratories (Any Sciences). As the computation reveals, item number 2 "Laboratory Tools and Equipment" got the highest rank with a weighted mean of 2.89. On the other side, item number 3 "Chemicals" got the lowest rank with a weighted mean of 2.45.

Health/Medical/Dental. The computation displays that item number 3 "Medicines/First Aid" has a weighted mean of 3.10 which makes it ranked as number 1. On the contrary, item number 2 "Medical Doctor/Dentist/Nurse" has the lowest weighted mean of 2.64 that makes it ranked as number 4.

Laboratories (Any Sciences). As the computation reveals, item number 2 "Laboratory Tools and Equipment" got the highest rank with a weighted mean of 2.89. On the other side, item number 3 "Chemicals" got the lowest rank with a weighted mean of 2.45.

Laboratories (THE- HE). Item number 3 "Home/ Cooking Utensils" got the highest rank with a weighted mean of 3.01. However, item number 1 "Home Furniture" got the lowest rank with a weighted mean of 2.79.

ICT/Internet. It was found that item number 1 "Computer Rooms/Center" got the highest rank with a weighted mean of 3.34 which is described as Very Satisfied. On the other hand, Item number 3 "Internet Connections" got the lowest rank with a weighted mean of 2.43 which is described as Satisfied.

Guidance and Counseling. Item number 1 "Guidance Office" has the highest rank with a weighted mean of 3.00. On the contrary, item number 2 "Special Counseling Room" got the lowest rank with a weighted mean of 2.63.

Security. Item number 3 "Disciplinary Measures/Rules" got the highest rank with a weighted mean of 3.18. However, item number 2 "Number of Security Guards" got the lowest rank with a weighted mean of 2.79.

Co-Curricular Activities. Item number 1 "Sports" got the highest rank with a weighted mean of 3.14. On the other side, item number 3 "Literary-Musical Related Contests" got the lowest rank with a weighted mean of 2.92. This simply indicates that students are not only sports-minded, but they are also inclined to literary and music.

Table 4.1 Relationship Between Students' Academic Achievement and Level of Adequacy of the School Support System
N = 635

Variables	r	Sig	Interpretation	Decision
Academic Achievement and Level of Adequacy	-0.070	0.175	Not Significant	Do Not Reject Ho

Table 4.1 shows the test of relationship between the students' academic achievement and the level of adequacy of the school support system. It can be gleaned from the table that there is no significant relationship between the students' academic achievement and the level of adequacy of school support system since the computed correlation value of -0.070 with a computed significant value of 0.175 which is greater 0.05 level of significance. The result depicts that no matter how adequate is the support of the school to the students, it does not affect the students' performance in school. It denotes further that school laboratories, libraries, students' welfare, school clinic, school curricular activities and the like found to have less impact and or statistically not related to students' academic achievement.

Tinto (1993) maintained that instructional experience directly influenced and facilitated students 'social and academic integration in the higher education environment. Riley and Coleman (2011) have observed that educators often indicate that one of the reasons students leave low performing schools is because of poor learning environments. Students have at times voiced similar frustrations (Thayer, 2000). For these reasons, the facilities and environment in which SSS functions were examined for signs of deficiencies that would potentially disrupt instructor-student engagement.

Table 4.2 Relationship Between Students' Academic Achievement and Level of Satisfaction on the School Support System
N = 635

Variables	r	Sig	Interpretation	Decision
Academic Achievement and Level of Satisfaction	0.046	0.377	Not Significant	Do Not Reject Ho

Table 4.2 illustrates the test of relationship between the students' academic achievement and the level of satisfaction on the school support system. The result revealed that there is no significant relationship between the students' academic achievement and the level of satisfaction on school support system since the computed correlation value of 0.046 with a computed significant value of 0.377 which is greater than the present level of significance 0.05. This simply means that the students' level of satisfaction on the school support system does not affect their academic achievement in school.

This is supported with Huntley (2008) that the most basic tenet of Astin's Theory of Involvement is that the more students learn, the more they are involved the academic and social aspects of their educational experience. An involved student is one who devotes considerable energy, spends more time on campus, participates actively in student organizations and school activities, and interacts often with faculty.

Table 5 Correlation Between the Level of Adequacy and the Level of Satisfaction on the School Support System N = 635

Variables	r	Sig	Interpretation	Decision
Level of Adequacy and Level of Satisfaction	0.622	<0.001	Significant	Reject Ho

Table 5 depicts the test of correlation between the respondents' level of adequacy and the level of satisfaction on the school support system. The result shown that the level of adequacy of the school support system is significantly associated to the students' level of satisfaction on the school support system since the computed correlation value of 0.622 with a computed significant value of <0.001 which is lower than 0.05 level of significance thus, the null hypothesis is rejected. The result of the study denotes that the level of adequacy of the school support system greatly influence students' level of satisfaction. The greater the support from the school, the more satisfied the students are.

CONCLUSIONS

Based on the preceding results of the study, there are salient areas in the student support system that requires the school administration to look into and be given preferential attention. Although in the Student-respondents are satisfied with the Level of Adequacy of Schools Support Services, internet connection is of one of the greatest concern that need to be improve with because students were not satisfied with the result. Also, students are satisfied with the schools support services in the aspects of student welfare support, learning center/library, health/medical/dental, laboratories (sciences) laboratories (THE-HE), guidance and counseling, security; and co-curricular activities except for the internet connection because respondents are not satisfied with.

RECOMMENDATIONS

Based upon the findings and conclusions of the study, it is highly recommended that the school should conduct a regular assessment of the status of the student support services if global learning and quality graduates are to be desired.

Furthermore, additional budget for these identified deficiencies be allotted by the school administration giving preferential attention to the improvement and enhancement of the following identified areas: acquisition of additional number of updated books and references in the library. A computer with internet connection should be made available in the library, for ICT services, there should be a spacious computer laboratory/ room with enough number of computer units which have access to the internet and adequate to serve the number of enrollees. Security of the students be given fullest attention, presence of a security guard in the school is highly needed.

Future researchers may conduct a parallel study with a wider scope in order to get a more valid and reliable results. They may investigate the relationship between the personal financial management of teachers and their job performance and productivity.

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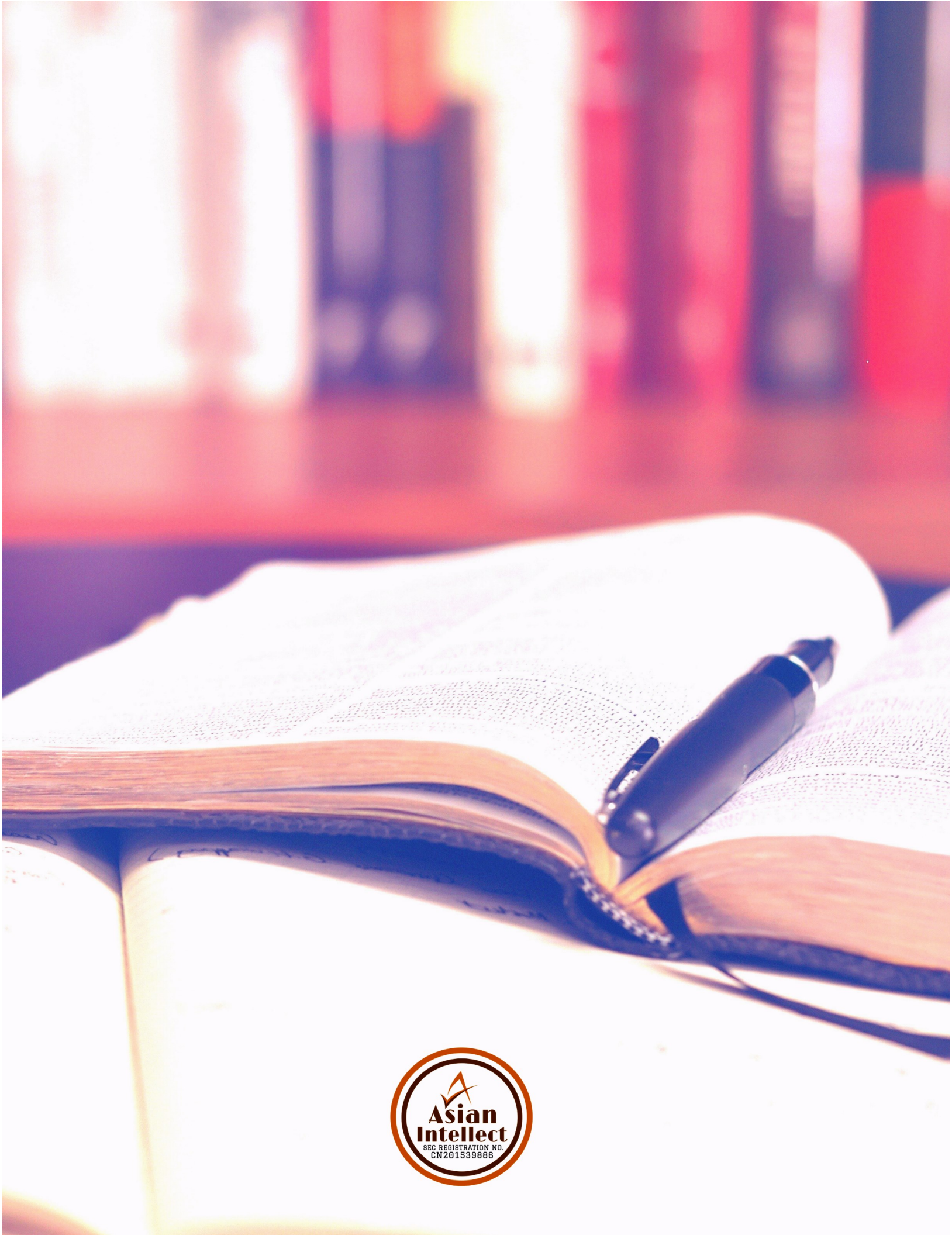
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