Information and communication technology utilization in teaching mathematics and its effect on the teachers' commitment and performance

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Abstract: The term 21st Century Teaching is the latest trend in the education system. It is expected from the educational institutions to utilize Information and Communication Technology in teaching in order to improve the teaching-learning process and other related activities. The study sought to examine the utilization of Information and Communication Technology in teaching Mathematics and its effect in teachers' commitment and performance. The researcher used quantitative descriptive method in gathering, collecting, analyzing, and interpreting of data. A pre-validated questionnaire was used to elicit the needed data for the study. Mean, Pearson r correlation, and multiple regressions were applied to interpret the collected data from the respondents. Finding show that public elementary teachers use software and hardware resources at Great Extent in teaching Mathematics. The commitment of teachers in terms of affective, continuance, and normative were assessed as great extent. Teachers' performance in terms of content, knowledge and pedagogy, learning environment, diversity of learners, curriculum planning, assessment and reporting, community linkages and professional engagement, and personal growth and professional development were all rated as very satisfactory. Lastly, findings confirmed that Information and Communication Technology utilization has significant effect on teachers' level of commitment and performance. It is suggested that the schools, governments, and other local government units must invest more in the Information and Communication Technology because it is one of the necessities of the public elementary schools in teaching a learning area.

Keywords: Information and communication technology, Utilization, Teachers' commitment

INTRODUCTION

The term 21st Century Teaching is the latest trend in the education system. It is expected from the educational institutions to utilize Information and Communication Technology in teaching to improve the teaching-learning process and other related activities. However, according to Kamothamas (2016), the effect or impact of Information and Communication Technology depend on the intensity of Information and Communication Technology utilization, which is also dependable on the size and structure of the existing Information and Communication Technology sector or department in the school.

Information and Communication Technology is a global connection of many and different types of computer networks connected. As mentioned by Anderson and Glem (2003), Information and Communication Technology refers to those technologies that are used to access, gather, manipulate and present or communicate information. It includes the software or any applications that can access to internet or local network connections, and even the hardware such as computer.

In Philippine Education System, the main target of the utilization of Information and Communication Technology is to increase the outcome of the teaching-learning process, which is the performance of the learners. Information and Communication Technology utilization includes the use of tablets, computers, laptops, and other technology as tools to develop teaching pedagogy, learning content, learning standards, evaluation, and assessment standards, and to promote lifelong learning.

The utilization of Information and Communication Technology in teaching is an important matter for students, teachers, and school administrator to ensure quality of education. With the help of the utilization of Information and Communication Technology, teachers will be able to save time in preparation and will have more time to execute the objectives of the lesson and will have bigger percentage for the learners to master or acquire the competencies prescribed in the curriculum guide.

As teachers need to utilize the Information and Communication Technology to cope up with the rapid changes and development of technology, and teach the technology migrant effectively, there is a need to rethink and revisit the classroom environment because this is where the teachers and the learners will spend much time in teaching. As mentioned by Ngurukwem (2006), Information and Communication Technology can be used in creating a pool of educational media for effective teaching and learning process. Yet, this will only be possible if the school has enough utility and technology to set up an enhanced curriculum which utilizes Information and Communication Technology.

Despite the demand to utilize Information and Communication Technology, Anoke (2008) cites in her study that stakeholders complain that graduates could not even manipulate basic Information and Communication Technology resources. This shows a gap regarding the extent of the utilization of Information and Communication Technology in teaching. If teachers utilize such technology, how come graduates could not manipulate basic Information and Communication Technology skills? No empirical evidence exists regarding the extent of utilization of Information and Communication Technology by teachers and its effect on their commitment. The main focus of this study is to therefore assess the extent of the utilization of Information and Communication Technology and its effect on teachers' commitment.

Statement of the problem

This study primarily sought to examine the utilization of information and communication technology in teaching mathematics and its effect in teachers' commitment and performance.

Specifically, the researcher aims to answer the following questions:

1) To what extent do teachers utilize Information and Communication Technology in teaching Mathematics in terms of software resources, and hardware resources?

2) What is the level of commitment in terms of affective, continuance, and normative dimensions?

3) How may the performance of the teachers be described in terms of content, knowledge and pedagogy; learning environment; diversity of learners; curriculum and planning; assessment and reporting; community linkages and professional engagement; and personal growth and professional development?

4) Does the utilization of information and communication technology have an effect on teachers' commitment and performance in the public elementary schools of Sta. Maria East District, Division of Bulacan?

LITERATURE REVIEW

Extent of utilization of information communication technology in teaching mathematics

The use of computers nowadays in all kind of work is very rampant. Most of the transactions that we have in our daily lives are now using computers. This is one of the reasons why there is a need to apply computer or Information and Communication Technology in education to make sure that teachers and students can go and follow the flow of the time. According to Deaton (2014) as cited in Liwanag (2015), whether we touch or we do not touch computers, it is almost impossible to escape the influence of computer on us. These include but not limited to fast transmittal of pieces of information, printouts, communication,, and others.

Rouse (2015) as cited in Mavellas, Wellington, and Samuel (2016) defines Information and Communication Technology as an umbrella term that cover communication devices or applications that include computers, televisions, radios, networks, satellites, video conferencing and eLearning. She also added that Information and Communication Technology are always talked about in a particular context, like Information and Communication Technology in education, libraries, health, etc.

As mentioned by Kosoko-Oyedeko and Tella (2010), its importance to teaching cannot be underestimated because the use of Information and Communication Technology in teaching is a relevant and functional way of providing quality education to the learners in order to assist them in acquiring the needed competencies as prescribed by the curriculum in order to be a productive citizen and to comply with the world of work. The main function of teachers is to make sure that their teaching will be able to change the behaviors of the learners. If there is no change in behavior, there is no learning. Learners nowadays are computer migrants, which mean that the utilization of Information and Communication Technology is not a new idea for the learners. They are already used to the use of Information and Communication Technology. Using an avenue which is already common to the learners will pave way for a higher chance of retention and learning. No wonder, Iwiyi (2007) made it clear that computer acquisition and use is an important aspect of the teaching and learning process.

Adesope and Adebayo (2007) elaborated that the introduction of Information and Communication Technology usage integration and diffusion has ushered a new age in educational methodologies. Thus, it has radically changed traditional method of information delivery and usage patterns in the domain as well as offering contemporary learning experience for both instructors and students. Information and Communication Technology has greatly facilitated the acquisition and absorption of knowledge, offering developing countries unprecedented opportunities to enhance educational system.

Eynon (2006), reported that students become more aware about how to learn when using Information and Communication Technology tools. Information and Communication Technology has also changed the relationship between teacher and students. In education, according to Ubulom, Enyekit and Onuekwa (2011) emergence of Information and Communication Technology has totally revolutionized the way we access, process, store, retrieve and disseminate information within organizations or across the globe, whether it is in vocal, pictorial, textual numeric, or macroelectronic based hence Information and Communication Technology is now a trend in the education sector.

The competencies learned by using Information and Communication Technology prepare learners better for further education and in future work. It is widely acknowledged that Information and Communication Technology tools can be used to improve the quality of teaching and learning of basic sciences such as biology, chemistry, physics, mathematics, additional mathematics as well as vocational agriculture. The prevalence and rapid development of Information and Communication Technology have transformed human society from the information and technology age to age of knowledge. Most employers of labor today acquire Information and Communication Technology skills as a prerequisite for employment in their establishments. This is the reason why a teacher should employ the use of Information and Communication Technology in teaching as students will be more aware about the existence and the application of Information and Communication Technology in the human world (Amuchie, 2015).

Teachers' commitment
To be committed to doing the tasks, one must be motivated. According to Gomes & Borba (2011), work motivation is one of the most influential constructs in organizational psychology,

and it has been analyzed in many work contexts. In the education setting, Zenorini, Santos, & Monteiro (2011) made it clear that teacher motivation is considered to be a key construct due to its impact on student motivation and effective school functioning.

Teacher commitment is the emotional bond between the teacher and the school. It can also lead to motivation to work. Commitment is one's attitude, including affect, belief, and behavioral intention toward his work (Cohen, and Mart cited in Ayele, 2014). Commitment as an attitude reflects feelings such as attachment, identification and loyalty to the organization as an object of commitment.

According to Smith (2010), committed teachers may have strong psychological ties to their school, their students or their subject areas. Committed teachers should be internally motivated. Teacher commitment may be directed towards some entities; for example, to the occupation of teaching, to student success, to specific programs, or to the school as an organization.

The issue of one's commitment comes as a result of experienced responsibilities for the outcomes of one's work (Yusof, 2012). He also added that changing teacher commitments should prove important in efforts to spread newly developed images of good teaching. This teaching will give a positive impact on the part of the learners. On the other hand, according to Akpan (2013), employees who perceive the threat of job security may become less committed to the organization they are working for and may decide to quit the job.

Educational institutions including public and private schools employ both male and female teachers. In the study of Nagar (2012), it was found out that women are more committed compare with their male counterparts. This result depicts that school administrators must already take actions regarding the commitment of male teachers in the organization. This lower commitment of male in their job and the school will have negative implications on the part of the pupils.

Focusing on the research of Asad and Abdulrauf (2015), teachers' promotion must be considered to ensure the commitment of teachers. This can be achieved by ensuring that promotion should be done on merit, experience and skills. Teachers should be remunerated well to motivate them to enhance commitment. A related study by Aydogdu and Asikgil (2011) concludes job satisfaction to have a positive correlation with teachers' commitment with the organization. The more satisfied a teacher with the job, the greater the commitment the teacher exerts for the organization.

Viewing job satisfaction from other perspectives that work and family balance; employees not only feel satisfied with what they earn but with how they were able to manage their work and family time. An investigation by Agarwala, et.al. (2014) comparing employees of three countries concludes that employees' favors career that was able to balance the conflict between work and family.

Teachers' performance

Teachers are considered as the front liners in the education sector. They are the ones who are expected to cater the main clientele of the Department of Education, which are the learners. It is indeed important to make sure that they are functioning satisfactorily based on what is expected from them.

Teachers work superiorly if they are motivated. According to Marry (2010), both intrinsic and extrinsic motivation leads to teacher's superior performance. These motivational factors such as allowances, salary and recognition etc impact positively on their satisfaction which results into their effective performance as well.

Teachers are being evaluated to gauge their performance. As mentioned by Gavino (2013), results of performance evaluation reveal the quality and impact of the strategies and methodologies employed in the field of teaching. It reflects the level of competence of a teacher to handle the learning styles of students and the level of capability to employ varied strategies and methods of teaching for effective and efficient teaching and learning process.

Teachers' performance could be described in various ways. Jay (2014) defined teachers' performance as the act of accomplishing or executing given tasks. It focuses on how the teachers performed the duties and responsibilities as prescribed in their position description form in a given school year. However, how a teacher functions depends on their eagerness and willingness to go beyond their duties and responsibilities. As mentioned by Aacha (2010), teacher motivation has to do with teacher's attitude to work desire to participate in the pedagogical process with school environment as well as teacher's interest in student's discipline and control in classroom.

How teachers perform is also dependent on how they prepare themselves in entering the noblest profession. Pre-service training programs are important, in-service training programs are just as important for teachers (Oral & Saglam, 2010). When teachers are not well prepared in pre-service training programs, in-service training programs, especially professional development (PD) activities, are vital for improving their proficiency in teaching (Demirtas, 2010). One way to increase teachers performance and the quality of teachers is to provide professional development to the teachers (Ozer &Beycioglu, 2010). One of these is to make sure that teachers are integrating Information and Communication Technology in teaching. Some studies have clearly shown that when teachers find way to develop themselves professionally within and beyond the school, it affects teachers positively (BEaston, 2008; McCaughtry et al., 2006).

Effect of information and communication technology in teachers' commitment
Teaching nowadays requires 21st Century Teachers. One of the characteristics of a 21st Century teachers is that teacher must know how to use and utilize Information and Communication Technology in teaching. No wonder why Owolabi and Owolabi (2015) cited that for a teacher to function effectively, a teacher must have adequate background on computer training which will help the teacher to function in school and facilitate the teaching-learning process. Teachers who are committed in their job function more compare with those who are not committed.

Tasks and reports nowadays are utilizing Information and Communication Technology. To perform this job, skill in the utilization of Information and Communication Technology is needed. As this assumption of the study is a new variable (Utilization of Information and Communication Technology) to determine teachers' level of commitment, limited study and researches are available. This paves the way for the researcher to conduct and determine the effect of the utilization of Information and Communication Technology with teachers' commitment.

Effect of information and communication technology in teachers' performance
The use of Information and Communication Technology in the classroom teaching-learning is very important for it provides opportunities for teachers and students to operate, store, manipulate, and retrieve information, encourage independent and active learning, and self-responsibility for learning such as distance learning, motivate teachers and students to continue using learning outside school hours, plan and prepare lessons and design materials such as course content delivery and facilitate sharing of resources, expertise and advice (Ali, et.al., 2013).

Generally, according to three objectives are distinguished for the use of Information and Communication Technology in education: (i) The use of Information and Communication Technology as an object of study; refers to learning about Information and Communication Technology, which enables students to use Information and Communication Technology in their daily life. (ii) The use of Information and Communication Technology as an aspect of discipline or profession; refers to the development of Information and Communication Technology skills for professional or vocational purposes. (iii) The use of Information and Communication Technology as medium for teaching and learning; focuses on the use of Information and Communication Technology for the enhancement of the teaching and learning process (Drent &Meelissen, 2007)

Charles (2012) identified several factors influencing use of Information and Communication Technology to make teaching-learning effective which include: self-efficacy, computer motivation, computer attitudes, the attitude-behavior relation, technology integration, constructivist beliefs, Information and Communication Technology motivation, attitudes towards Information and Communication Technology in education, organization of learning, organizational climate, infrastructure and resources, teachers" educational beliefs, perceptions on Information and Communication Technology-related school policies, teachers' individual background, gender, teaching experience, professional development, teachers' attitudinal factors, innovativeness, technology self-efficacy (technology competence), attitude toward computers in education, socio-organizational factor, school culture, administrative support, school support, pressure to use technology, age, education level, level of Information and Communication Technology training, proximity from a town center, government policy on Information and Communication Technology literacy, period of experience with Information and Communication Technology. Therefore, these factors may assist teachers and educators to use Information and Communication Technology in teaching-learning process and become successful technology adopters.

METHODOLOGY

Research design
To have a comprehensive analysis and presentation of findings, the research employed quantitative descriptive method. As mentioned by Best & Kahn (2007), the use of descriptive method provided a room for the researcher to explore the prevailing conditions and causes of particular phenomenon. This means that descriptive research gathers quantifiable information that can be used for statistical analysis and inference on the target audience Furthermore, descriptive method is a purposive process of gathering, analyzing, classifying, and tabulating data about prevailing conditions, practices, beliefs, processes, trends, and cause and effect relationship and then making an adequate and precise interpretation about gathered data (Salaria, 2012).

The researcher utilized the descriptive method to examine the extent of utilization of Information and Communication Technology in teaching Mathematics and its effect on teachers' commitment.

Locale of the study and respondents
Teacher in public elementary schools of Sta. Maria East District were the respondents of the study. Sta. Maria East is a big district located in the Division of Bulacan with ten public elementary schools under the supervision of a public schools district supervisor.The researcher used the total population of the public school teachers in Sta. Maria East District to make sure that all teachers were given a chance to be part of the study and to provide a more concrete, valid, and reliable findings of the study.For the School Year 2017-2018, there are 220 teachers in Sta. Maria East District, where in the biggest number of 31 teachers come

from Parada Elementary School, while the least number of 8 teachers are from Buenavista Elementary School.

Research instruments

The main instrument of the study was an adapted prevalidated questionnaire. The first instrument is the questionnaire of Bayonito (2016) that was used in a study to assessed the extent of utilization of Information and Communication Technology in teaching, which is also the target of this research. The second instrument was based on Ayele (2014) focusing on level of commitment. While for teachers' performance, DepEd Order 42, s., 2017 was adapted. This were used to gather data for the specific problems specified in this study. A questionnaire is an instrument that is comprised of a set of questions to be presented to the target audience to elicit ideas and behaviors, preferences, traits, attitudes, and facts. Survey research involves the collection of information from a sample of individuals through their responses to questions presented or given.

The questionnaire was divided into four main parts:

The first part aims to gather information regarding the school where the respondents are teaching;Part II focused to elicit information regarding the extent of utilization of Information and Communication Technology in teaching Mathematics regarding using software and hardware resources. The instrument of Bayonito (2016), which is already prevalidated was used to analyze the utilization of Information and Communication Technology.The third part is intended to measure the level of commitment of teachers as described by the following indicators: affective, continuance, normative in this part, the researcher adapted the pre-validated research instrument of Ayele (2014) which is used to measure the commitment of the teachers.Finally, the fourth part focuses on the teachers' performance, which is based on the latest standard given by the Department of Education as stipulated in DepEd Order 42, s. 2017.

The interview also utilized to get a better analysis of the present situation, aside from confirming and verifying the data inputs collected from the questionnaire. The questionnaire was specifically designed in order to answer the problems of the study. The questionnaire was then presented to the thesis adviser prior to the crafting of the final draft.

Data analyses procedure

Before the conduct of the study, the researcher secured the permission of the
graduate school to make sure that ethical consideration was employed. Once the permit was secured, a letter of request to the Office of the Schools Division Superintendent and Public Schools District Supervisor seeking permission to conduct the study was sent for approval to distribute the questionnaire. Upon the grant of permission, the researcher went to the public schools in Sta. Maria East District and personally administered the questionnaire.

FINDINGS AND DISCUSSION

Extent of utilization of information and communication technology in teaching mathematics

Information and Communication Technology in the 21st-century teaching is an expectation from the teachers. Considering the trend in education set up in the Philippines, curriculum expects the students to be knowledgeable in the use of technology that is why there is also a need for the teachers to be adept in utilizing Information and Communication Technology in terms of software resources and hardware resources.

Specifically, this study aimed to assess the utilization of Information and Communication Technology in Mathematics in among the public elementary schools in Sta. Maria East District of Bulacan. As shown in the geographical location of the district, ten public schools are located in its map with 220 public school teachers.

Information and communication technology in teaching mathematics in terms of software resources
The finding presents that public school teachers utilize software to the great extent with a general weighted mean of 2.70. A closer look on the table entails that the most used software is word processing based on its value of 3.39 with a verbal interpretation of great extent. The lowest mean of 2.15 is recorded on using database software and interpreted as some extent. Findings show that software resources are really important in their teaching.

This is supported by Kumar and Kumaresan (2008) when they cited that mathematics teaching can be made much more interesting, inventive and exploratory specific software. How teachers utilize these software in performing their respected duties and responsibilities is an important matter to consider.

Information and communication technology in teaching mathematics in terms of hardware resources
The data illustrated how teachers utilized hardware resources in teaching Mathematics. Illustration disclose that the responses garnered an average mean of 2.89, which is verbally interpreted as great Extent. Also, out of 11 indicators, it is magnified that first indicator color printer marked a mean of 3.38, which is understood to be great extent, while the lowest mean of 2.57 is found on third indicator laser print. Analysis of data reveals that teachers are utilizing the hardware resources to their full potential. As encapsulated by Yusuf (2005), computers affect the field of education and it is undeniable that it effects how teachers execute their lessons.

Teachers' level of commitment

Commitment has been the topic of various researches in businesses. It is the relationship that is characterized by co-operation between two parties is more likely to be long-term, participative and focused on achieving service quality than one that is not (Coetzee, 2005). In this research, its focus is to know how committed the teachers are in terms of affective, continuance, and normative.

Teachers' level of commitment in terms of affective
The results show the level of commitment of teachers in terms of affective domain noted an average mean of 3.49 or great extent. Findings revealed that third indicator "Teachers proud to be in their teaching profession" marked the highest mean of 3.64 known as very great extent. However, not all indicators are marked very great extent. This also shows that seventh indicator "Teachers do not mix their feeling, emotions and personal problems in the profession work" garnered the lowest mean of 3.29 with verbal rating of great extent.

It can be concluded that teachers care about their image as public school teachers. It deals more with their emotion as an individual and part of the learning institution. These shows that teachers see that they have a feeling of belonging in the school which makes them part more eager to be part on the realization of school's visions, mission, goals and objectives.

This claim is supported by Kumari and Afroz (2013) as they emphasized that an individual who is affectively committed is emotionally attached and involved in the organization or institution he chose as second home. It has influence in personal

characteristics, influence personal characteristics, structural characteristics, and work experiences.

Teachers' level of commitment in terms of continuance
As this research decided to dig deeper to understand teachers' commitment, the continuance was also measured. It presents that teachers assessed their continuance commitment with a general weighted mean of 3.17 or great extent. Furthermore, responses from the respondents made it clear that the fourth indicator "Teachers would not leave teaching right now because teachers have a sense of obligation to teaching" accumulated a mean of 3.37 with a verbal rating of Great Extent. Even though all of the indicators are assessed great extent, second indicator "Too much of teachers "life would be disrupted if teachers were to change their teaching profession now" engraved a mean of 2.99.

As mentioned by Beck & Wilson (cited in Ayele, 2014), those who possess continuance commitment have an instrumental attachment to the organization, where the individual's association with the organization is based on assessment of economic benefits gained. It only depicts that teachers are committed to staying in their job despite their appeal that the salary is not enough for a decent life.

The commitment of any individual is not easy to measure. That is why to make sure that teachers are given a chance to measure their commitment scientifically, the normative assessment was also utilized.

Teachers' level of commitment in terms of normative
As shown in the data gathered, normative commitment of teachers is assessed as great extent with an average of 3.26. Although all of the indicators are rated great extent, second indicator "Teachers are in teaching profession because of they are sense of loyalty to it" caught the highest mean of 3.31, while the first indicator "Teachers would feel guilty if they left teaching profession" caught a mean of 3.15 but still interpreted as great extent.

The analysis of the responses of the teachers denotes that they feel the moral responsibility to stay in the school and be part of the accomplishment of school's targets. This is seconded by Maheshwari et al., (2007) as they pointed out that it means having a sense of obligation of the professionals towards the profession to uphold the value.

Teachers' performance

How teachers perform inside and outside the classroom is a measurement of their job performance. Recently, Department of Education released its latest DepEd Order 42, s., 2017 which focus on standards of a professional teacher in the Philippines. This set of standards makes explicit what teachers should know, be able to do and value to achieve competence, improved student learning outcomes, and eventually quality education. It is founded on teaching philosophies of learner-centeredness, lifelong learning, and inclusivity/inclusiveness, among others.

Teachers' performance in terms of content, knowledge and pedagogy
First on the list is an assessment on content, knowledge and pedagogy. The findings posit that teachers' performance in this criterion marked an average of 3.29 or very satisfactory. A closer look on the table reflects that sixth indicator "Mother Tongue, Filipino and English in teaching and learning" noted a mean of 3.45 with verbal interpretation of very satisfactory. The lowest mean of 3.11 is listed on second indicator "Research-based knowledge and principles of teaching and learning", but still rated as very satisfactory.

This entails that teachers master the concepts and ideas they need to teach to their pupils. A teacher can only transfer the required competencies to the learners once these topics are already mastered by the teachers. If teachers have inaccurate ideas or stock of knowledge, they may pass these wrong information to their pupils. The success and failure on the target of the lesson maybe put on the line as these misconceptions may evolved in more illogical and build up of false knowledge. How teachers execute a lesson may depend on how they learn the subject matter.

The best preparation for teaching is the mastery of content, knowledge, and pedagogy. Kamamia, et.al., (2014) said that teachers are required to know what they are teaching because understanding of subject matter by a teacher implies that the teachers can grasp the main points and teach them to the learners, and to correct any misconceptions of knowledge, and all this revolves around the teachers understanding of the subject matter.

Teachers' performance in terms of learning environment
Teaching does not only evolve on content. How teachers maximize the space and learning is another important matter to consider. The learning environment calculated a weighted mean of 3.50 which is verbally interpreted as outstanding. It is also revealed from the illustration that first indicator "Learner safety and security" marked a mean of 3.55 which is also known as outstanding, while the lowest mean of 3.40 is found on fifth indicator "Promotion of purposive learning" which is verbally interpreted as very satisfactory.

What is reflected on the table makes it clear that public elementary school teachers master how to utilize the learning environment in teaching as this can also be used as mode of delivery of instruction. Also, it means that teachers were able to maximize the classrooms and to manage the behaviors of the pupils for positive classroom environment.

As cited by Fleming and Younger (2012), when teachers can provide positive classroom environment, it means opportunity for better discipline and management come. This is important in keeping the behavioral problems to a minimum.

Teachers' performance in terms of diversity of learners
Students differ among each for there are no individuals who are born alike or the same because of the existence of individual differences. Banks, et.al. (cited in Rahman, et. al., 2010) emphasizes that diversity be an apart of the nature of the human species, and students are and always have been different from one another in a variety of ways.

This results to diversity of learners in the classroom which is successfully addressed by the teachers as reflected in its average of 3.31 or very satisfactory. First indicator "Learners' gender, needs, strengths, interest and experiences" marked the highest mean of 3.41 with verbal rating of very satisfactory. The lowest mean of 3.20 is listed on fifth indicator "Learners from indigenous groups" but still interpreted as very satisfactory. Data from the illustration makes it visible that teachers were able to function based on this dimension and addressed different kind of learners inside the classroom.

Teachers' performance in terms of curriculum and planning
Before the teacher engages in actual classroom teaching, planning comes first. Another attributes of a teacher in the Department of Education is their ability to plan the programs, projects, and activities. It is glaring from Table 10 that teachers perform with very satisfactory on Curriculum Planning as shown in its average of 3.26. A closer look on the table magnifies that second indicator "Learning outcomes aligned with learning program" accumulated the highest mean of 3.32 with verbal rating of very satisfactory, while the lowest mean of 3.11 is listed on the fifth indicator "Teaching and Learning resources including Information and Communication Technology" known as very satisfactory. This denotes that

public elementary school teachers are fully aware of their functions in curriculum and planning and they were able to execute the tasks.

Planning before the actual lesson makes the flow of the process smooth because it includes what materials, methods, and time allotment are needed in the actual conduct of the lesson (Nesari and Heidari, 2014).

Teachers' performance in terms of assessment and reporting
Learner's progress is measured using assessment and reporting. DepEd Order 8 s., 2015. This provides the guidelines on what are the things to be measured and how they will be measured. Considering the result of the analysis of responses, illustration reflects that assessment and reporting recorded an average of 3.32 with verbal interpretation of very satisfactory. It can also be glanced that third indicator "Feedback to improve learning" marked a mean of 3.38 or very satisfactory, while the second indicator "Monitoring and Evaluation of Learner progress and achievement" and fifth indicator "Use of assessment data to enhance teaching and learning practices and programs" is marked as the weakest function of teachers.

It can be interpreted that teachers are adept in assessment and reporting of the progress of their learners based on the existing guidelines of DepEd for K to 12 learners. As cited by Jabbarifar (2009), classroom assessment and evaluation are highly concerned with qualitative judgments that are used to improve students' knowledge and learning. Assessment and evaluation also give teachers useful information about how to improve their teaching methods.

Teachers' performance in terms of community linkages and professional engagement
As the saying goes: "It takes a community to educate a child." That is why there is a need to have a strong ties with the community and other stakeholders of the school. Teachers are expected to have a good relationship with the parents and the community where the school is located.

Teachers assessed their community linkages and professional engagement as very satisfactory which is matched with its average of 3.39. It can glance that third indicator "Professional Ethics" accumulated a mean of 3.51 or outstanding, while the lowest mean of 3.25 is found on first indicator "Establishment of learning environments that are responsive to community contexts" marked a lowest mean of 3.25 or very satisfactory. Closer scrutiny magnifies that teachers have a good relationship with the community and are engaged to develop themselves professionally. Cabardo (2016) also noted that the participation of the stakeholders through community linkage is an important asset in school. That is why teachers who are adept in involving the community in school have a greater chance of having a higher performance rating.

Teachers' performance in terms of personal growth and professional development
Teaching requires a lifelong self-improvement. As the new ideas, concepts, and ideas there is a need for teachers to improve themselves and personally and professionally. Table 13 shows that teachers assess their personal growth and professional development as very satisfactory which is supported by its average of 3.49. Also, glancing on the table reveals that highest mean of 3.50 is listed on fifth indicator "Professional development goals". On the other hand, teachers assessed the first indicator "Philosophy of teaching" as very satisfactory with a mean of 3.44. This denotes that teachers are doing activities to improve their craft such as enrolling in graduate schools.

Boudersa (2016), stated that teachers have to possess a great deal of knowledge and skills with regard to both teaching and assessment practices in order to meet the high demands and standards of quality education through professional development.

Effect of information and communication technology utilization on teachers' commitment and performance

Information and Communication Technology utilization is expected to help the teachers to lessen the burden and stress being experienced in teaching for it exist to assist the person in lessening the agony in performing any task that may use technology.

Regression analysis of utilization of ICT on teachers level of commitment
The findingshows the analysis on the effect of information and communication technology utilization in teachers' level of commitment. It is glaring from the findings that software resources has a beta coefficient of .15 but does not significantly affect the level of commitment of teachers as shown in its significance level of .128. An increase of unit hardware resources will entail an increase of .197 on the level of commitment. On the other hand, hardware resources marked a beta coefficient of .289 and significantly affect the level of commitment of teachers as reflected in its .004 significance level.

Analysis of the effect of Information and Communication Technology utilization on teachers' level of commitment shows a p-value of .000 denoting that utilization of Information and Communication Technology significantly affect teachers' level of commitment.

Regression analysis of utilization of ict on performance of the teachers
The data reveals the effect of Information and Communication Technology utilization in teachers' performance. It is shown from the table that software resources has a beta coefficient of .285 and significantly affect teachers' performance as shown in its significance level of .004. An increase of unit software resources will entail an increase of .196 on teachers' performance. On the other hand, hardware resources marked a beta coefficient of .171 but does not significantly affect teacher's performance as reflected in its .08 significance level.

Analysis of the effect of Information and Communication Technology utilization on teachers' performance shows a p-value of .000 denoting that utilization of Information and Communication Technology significantly affect teachers' performance.

CONCLUSIONS AND RECOMMENDATION

Based on the results and discussion of the current research undertaking, the researcher concluded that teachers are skilled in using various software and hardware resources in their teaching, thereby facilitating the application of 21st-century teaching methods. Additionally, the strong attachment of teachers to their schools results in a low chance of attrition or leaving the teaching profession. The teachers in Sta. Maria East District are competitive in their craft and adhere to the standards set by the Department of Education for professional teachers. Furthermore, the use of Information and Communication Technology in teaching has been shown to improve teachers' commitment and performance.

Employing the findings and conclusions drawn from the study, the following recommendations are hereby offered: School heads are advised to continue providing training to teachers on Information and Communication Technology, particularly on the software and hardware they are not yet familiar with. As the development of Information and

Communication Technology is ongoing, teachers need to keep pace and continuously develop their skills with the support of their school heads and the Department of Education.

Additionally, it is recommended that teachers be rewarded for their hard work to make them feel appreciated and to strengthen their commitment to teaching. Schools should establish a committee on awards and recognition to boost morale and sustain teacher commitment, as humans tend to work better when they feel appreciated.

Furthermore, the Sta. Maria East District should hold colloquiums on the best teaching practices to assist those who are falling behind. It is suggested that teachers and schools with outstanding ratings share their expertise and insights on achieving high performance.

Lastly, the government must invest more in providing Information and Communication Technology resources to public schools. This investment would significantly aid teachers by reducing their workload and making classrooms more interactive, aligning with the technology familiarity of learners.

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