

PROFILE AND EFFICACY TO THE TEACHERS' SKILLS IN INFORMATION AND COMMUNICATION TECHNOLOGY

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Abstract

This study aimed to determine the relationship between the teacher's profile and efficacy to the teachers' skills in Information and Communication Technology. Specifically, it once determines the following: First, the profile of the respondents in terms of age, civil status, educational attainment, gender, specialization and trainings or seminars attended relative to ICT. Next, the level of teacher's efficacy in terms of adaptability, flexibility, growth mindset and patience. Then the extent of teacher's skills in using ICT relative to data management, email management, internet navigation, word processing and touch-typing skills. It also determines if the profile and efficacy have significant relationship to the teachers' skills in ICT.

Most of the respondents were aged 30 and below, female, married, with Master's Units, with 3-4 seminars and trainings related to ICT attended, and teaching all subject areas. The teachers' efficacy in terms of adaptability, growth mindset and patience were very high while flexibility was high. The extent of Teachers' skills in using ICT relative to Data Management, Touch Typing and Word Processing were interpreted as To a Great Extent while Email Management and Internet Navigation skills was To a Very Great Extent. Teachers' age showed a significant relationship in terms of Data Management, Email Management, Internet Navigation skills, Touch Typing and Word Processing Skills while teachers' civil status, educational attainment, gender, specialization and trainings or seminars attended have no significant relationship. Teachers' efficacy such as adaptability, flexibility, growth mindset and patience showed significant relationship in terms of Data Management, Email Management, Internet Navigation skills, Touch Typing and Word Processing Skills.

Based on the findings of this study, the following conclusions were drawn, the profile of teachers were partially accepted in the use of ICT tools in chosen elementary schools in Nagcarlan District. The teachers' efficacy has significant relationship in the use of ICT tools in chosen elementary schools in Nagcarlan District.

Based on the conclusions of this study, the following recommendations were formulated. To be more computer and information literate, comprehensive and extensive computer literacy program for teachers may be conducted frequently to meet the needs of the teachers. Using ICT in doing work tasks such as preparing lessons and reports, communicate online, search for information and other related activities may be strengthened to lessen the burden of teacher's workloads.

Keywords: New Normal Education, Online Distance Learning, Modular Distance Learning, *Teachers' Skills in Management*, *Soft Skills*, *Hard Skills*

1. Main text

Introduction

In this new normal situation, we are in a stage where everything should be modified to keep us safe. With the world facing the coronavirus crisis, the pandemic has wreaked havoc and altered human lives. Everything around us is all affected. It seems that the world has been stopped. Even our education system is affected in this kind of situation. But it is never a hindrance to continue imparting knowledge to the learners. The Philippine education system has found different ways to deliver the learnings to the children and one of the best ways is through Information and Communication Technology (ICT) as it gives opportunities to bridge teachers to learners. The growth of information and communication technologies (ICT) has dramatically reshaped teaching and learning process. Teachers, as part of the education system must adapt to the changing system. Positive attitudes towards computer used by teachers are important to ensure the integration of the technology which is effectively carried out during teaching and learning. In teaching, one must know about the ICT teaching practices that are being utilized successfully in the field, so this information can be imparted to educators. ICT is practical, worthwhile, and affordable and how it is being taught in the schools. From a reasonable perspective, the teachers may need to know how to impart lesson with cheaper traditional tools that they would likely find in the normal classroom.

Unquestionably, ICT has impacted on the quality and quantity of teaching, learning, and research in teacher education. Therefore, ICT provides opportunities for teachers and students to communicate with one another more effectively during formal and informal teaching and learning (Yusuf, 2015b, pp. 316-321). In the same vein, teachers need training not only in computer literacy but also in the application of various kinds of educational software in teaching and learning (Ololube, 2016). Furthermore, teachers need to learn how to integrate ICT into their learning activities and school structure. The quality of teachers is known in virtually all countries to be a key predictor of student learning (Ololube, 2015a; 2015b). Therefore, teacher training is crucial using ICT, because ICT is a tool that on one hand can facilitate teachers training and on the other hand can help them to take full advantage of the potential of technology to enhance student learning (UNESCO, 2013). The researcher chose this topic since ICT has invaded and transformed many aspects of our lives to the extent that we live in an environment that is dominated by technology. In education system, ICT plays an integral role in teaching but there are still some teachers who are not used to technology. This study would be a great help for teachers as they would be aware of the technological skills they could utilize in their work..

Background of the Study

ICT as one of the best opportunities that Philippine education can provide to bridge the gap of school and society. As we face a new normal situation, ICT becomes one of the essential instruments to deliver the learnings to our children and to continue the operation and communication of school personnel.

The impact of ICT on the knowledge-based society has brought about major changes. In terms of form and content, it has had a massive and multiplying effect, to such an extent that the purpose of knowledge has come to permeate the wider society, with education being among the broadest implications and developments brought thereby. Parra (2012) claims that school is one of the venues where technology has had the greatest impact, which in turn has influenced the role of the teacher and become a part of the school everyday life.

Teachers, as the keys to improve the learnings with ICT, must equipped with the knowledge, skills, and attitudes. Teachers' efficacy towards the use of technology in teaching and learning process is one of the main factors for achieving a meaningful use of computer technology in the field of education. The successful utilization of technologies depends mainly on the teachers' efficacy toward these tools in adopting and integrating. Hence, it can be understood that teachers' efficacy has direct impact on the usage of the different tools in ICT.

Integration of Information, Communication, and Technology (ICT) in education refers to the use of computer-based communication that incorporates into daily classroom instructional process. In conjunction with preparing students for the current digital era, teachers are seen as the key players in using ICT in their daily classrooms. This is due to the capability of ICT in providing dynamic and proactive teaching-learning environment (Arnseth & Hatlevik, 2012).

Teachers, as the implementers of the new learning delivery, must need to accept and be ready towards the ICT integration in teaching and learning process. Although the teachers are reluctant to change their mindset towards the integration of ICT, they should be aware of the importance of ICT and should try to update their professional development. Without the positive attitudes, expertise, and knowledge to evaluate the use of and

role of ICT in teaching, it will not be successfully and implemented well.

As we experience pandemic, ICT becomes more essential in the field of education. It is the only way to access communication to students and parents even without reaching them personally. ICT gives a lot of opportunity to teachers to reach their students and co teachers. Without adequate information and communication technology (ICT) devices, internet/mobile network access, educational resources and teachers' training, students simply cannot partake in distance education to continue their learning trajectories.

As the internet becomes more and more available the more enabled devices increase, there are more learners searching for knowledge online. As a digitally capable teacher, your influence does not end in your physical classroom. With services like YouTube, teachers can create a channel where they share their knowledge to all and sundry. This gives the teacher a wider audience through online learning, video recording as the lesson can be accessed by many learners from different schools, at their convenient time. Teachers, as one of the beneficiaries should be equipped with skills and knowledge about the use of ICT. The efficacy of teachers about ICT is one of the keys to attracting and retaining them in the profession and an important component of building positive teaching and learning environments at the school level.

Due to ICT's importance in society as well as in the future of education, identifying the possible challenges to integrating these technologies in schools would be an important step in improving the quality of teaching and learning. Although some teachers appear to acknowledge the value of ICT in schools, they continue encountering obstacles during the processes of adopting these technologies into their teaching and learning.

This study attempted to find out the profile and efficacy to the teachers' skills in Information and Communication Technology. It would be beneficial for teachers to achieve meaningful use of computer technology as they would become aware and prepared.

Theoretical Framework

Mastering ICT skills and utilizing ICT towards creating an improved teaching and learning environment is of utmost importance to teachers in creating a new learning culture. Many teachers lack the knowledge and skills to effectively use ICT tools in facilitating learning in increasingly ICT-pervasive learning environments. Research, broadly speaking, classifies factors that facilitate the use of ICT in schools by teachers as either arising from their profile and professional efficacy that are felt likely to influence them.

Teachers' self-efficacy has progressively gained an important role in school psychology research because of its implications for teaching effectiveness, instructional practices, and for students' academic achievement (Klassen and Tze, 2014).

According to Bandura's Theory of Self efficacy, people regulate their behavior based on belief systems, particularly beliefs of personal efficacy (the power to produce desired outcomes and forestall undesired ones) and self efficacy (the belief in one's own ability to execute a certain course of behavior successfully) (Klassen and Tze, 2014). Both efficacy forms are situation- or task-specific key factors in how people construct and live their lives. Self efficacy theory has been used in research concerned with individuals' intention to use information technology. In this research, an individual's perception of their ability to competently use computers is defined as computer self-efficacy, which is concerned with the judgement of what can be done in the future. It refers to judgements of ability to apply skills to broader tasks, such as promoting education. Thus, computer self-efficacy does not refer to component skills such as using a specific software feature or booting up a computer, but to judgements of the ability to apply one's skills when using technology for broader tasks. A greater sense of computer self-efficacy has been shown to influence individuals' choice regarding computer usage and adoption in general. In the case of teachers, research has suggested that a strong sense of computer self-efficacy among teachers affects both how often and the way ICT is used in everyday instructional practice.

Self-efficacy theory which has been used in research concerned with teachers' intentions to use information technology (Player-Koro, 2012). Teachers' self-efficacy beliefs, contribute significantly to the level of their motivation and performance as well. This means that self-efficacy beliefs require more attention in education. ICT Self-efficacy is teacher's belief or thinking regarding to his or her ability to connect or integrate ICT.

The impact of ICT on the knowledge-based society has brought about major changes. In terms of form and content, it has had a massive and multiplying effect, to such an extent that the purpose of knowledge has come to permeate the wider society, with education being among the broadest implications and developments brought thereby. Parra (2012) claims that school is one of the venues

where technology has had the greatest impact, which in turn has influenced the role of the teacher and become a part of the school everyday life.

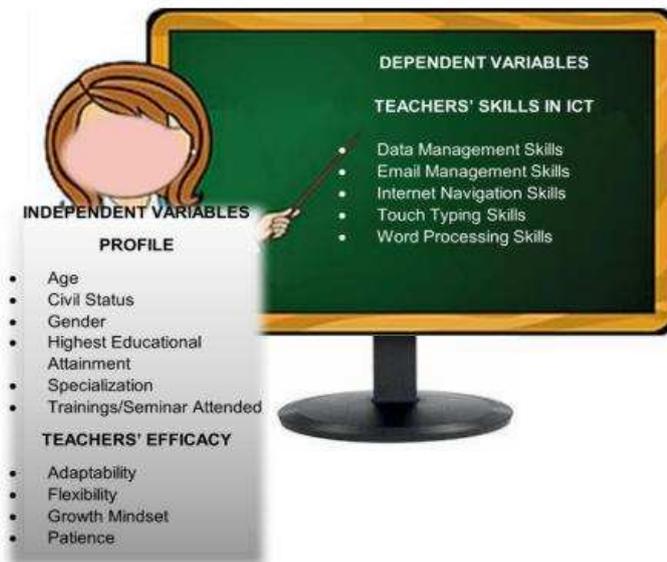
Aside from the concept of self-efficacy, this study is anchored in the study made by Ghavifekr, S. & Rosdy, W.A.W. (2015) entitled Teaching and Learning with Technology: Effectiveness of ICT Integration in Schools. The TAM theory or Technology Acceptance Model comprises of various parts which is representing the process of ICT acceptance by the users including behavioral intension, perceived usefulness, and perceived ease of use. While perceived usefulness refers to the degree to which person believes on the benefit from the use of a particular technology by improving the job performance, perceived ease of use refers to the importance of a technology in being user friendly for the users. Generally, TAM theory was developed to measure the effectiveness or success of a technology in helping to understand the value and efficacy of a particular system. It is also considered as one of the most influential theories in contemporary information systems research. However, the theory has evolved with more specific variables explaining how a user can accept a technology over the years.

The proposed framework included various factors directly associated with the core aim of the study that explained how knowledge and perceptions would affect the perceived usefulness and ease of use of ICT integration. The factors embedded in the conceptual framework had been meticulously interlaced, so that the interrelationship among them would constitute to measure their effectiveness on ICT integration by teachers. In addition, the intention of teachers to use the technology was strongly influenced by their perceptions on the usefulness of the system as well as the perceived ease of use and would determine their actual use of ICT. The proposed framework had guided this research in investigating the factors affecting the technology integration by schoolteachers.

Current situation shows us that access to ICT is a major requirement for participation in an educational society. In the context of ideas cited, the functional role of teachers within this approach not only requires a change in their methodological practices, but a change of mind involving their beliefs in the different environments where learning can be achieved.

This study is premised to determine the relationship of profile and efficacy to the teachers' skills in Information and Communication Technology.

To give a better view of the research problem, it is presented in a paradigm form.



The Research Paradigm of the Study

In the paradigm, the demographic profile of the respondents and their personal characteristics were used by the researcher as independent variables which included age, civil status, gender, highest educational attainment, specialization and trainings/seminars attended. The teachers' efficacy consisting of adaptability, flexibility, growth mindset and patience which may influence the skills of teachers in ICT tools such as word processing, data management, internet navigation, email management and touch typing served as the dependent variables for the study.

Statement of the Problem

This aimed to assess the issues of teacher's personal characteristics, information, and abilities in connection to ICT. Specifically, it sought answers to the following questions:

1. What is the profile of the respondents in terms of:
 - 1.1. Age;
 - 1.2. Civil Status;
 - 1.3. Educational Attainment;
 - 1.4. Gender;
 - 1.5. Specialization; and
 - 1.6. Trainings/Seminars Attended?
2. What is the level of teacher's efficacy in terms of:
 - 2.1. Adaptability;
 - 2.2. Flexibility;
 - 2.3. Growth Mindset; and
 - 2.4. Patience?
3. What is the extent of teacher's skills in using ICT relative to:
 - 3.1. Data Management Skills;
 - 3.2. Email Management Skills;
 - 3.3. Internet Navigation Skills;
 - 3.4. Touch Typing Skills; and
 - 3.5. Word Processing Skills?
4. Does the profile have significant relationship to the teachers' skills in ICT?
5. Does the teachers' efficacy have significant relationship to the skills in ICT?

Research Methodology

To attain the objectives of the study, the researcher used the descriptive method. The researcher used questionnaires distributed to the respondents. After the questionnaires were distributed and answered the researcher retrieved them and collected the data. Descriptive research is a study designed to depict the participants in an accurate way. More simply put, descriptive research is all about describing people who take part in the study.

Forty nine (46) teachers from Crisanto Guysayko Memorial Elementary School and twenty six (29) teachers from Yukos Elementary School in the District of Nagcarlan, Laguna were used as respondents in this research.

In the questionnaire, a five-point rating scales indicated below were used to determine the level of profile and efficacy of the teachers and the extent of teachers' skills in ICT.

Scale:

5	-	Strongly agree
4	-	Agree
3	-	Moderately Agree
2	-	Disagree
1	-	Strongly Disagree

Scale:

5	-	always observed/to a very great extent
4	-	often observed/to a great extent
3	-	sometimes observed/moderate extent
2	-	seldom observed/to a low extent
1	-	never observed/to a very low extent

In the construction of the questionnaire described above, an individual who was an expert in instructional supervision was furnished for the research instrument and for validation purposes.

After the research instrument had been validated, the researcher revised the same and incorporate the recommendations, suggestions and corrections gathered from the instructional supervision experts.

The revised version of the research instrument was submitted again to the validator to determine if improvements were correctly made, to finalize the research instrument and to get the approval if the instrument could already be used for data collection thru survey.

The researcher then proceed to the school supervisor and school heads from the selected elementary schools in Nagcarlan District, Laguna and furnished them copies of the approved letter to conduct survey as signed by the dean of the graduate school and as noted by the thesis adviser for perusal and approval of the school head. With the consent of the school heads, the researcher distributed the questionnaires to the respondents. The researcher intended to float the survey form to the teacher-respondents.

Later, the data gathered was given appropriate statistical treatment, analyzed, and interpreted.

The responses were tabulated as the basis for the statistical treatment of the data. It was done in order to determine the relationship of profile and efficacy to the teachers' skills in ICT.

The researcher used percentage to answer research question 1 in terms of teachers' profile, Mean and Standard Deviation were used to answer research questions 2 and 3 in terms of efficacy and ICT skills. Then, to answer research questions 4 and 5, Pearson Correlation were used to determine the significant relationship between profile and efficacy to the teachers' skills in ICT.

Results and Discussion

Teachers' Profile

Information and communications technology skills to the ability to utilize and communicate through varied technology. With our present education setting, teacher's skills in ICT are of high importance in delivering learning to learners especially those in an online distance learning. The impact of ICT on the knowledge-based society has brought about major changes. In terms of form and content, it has had a massive and multiplying effect, to such an extent that the purpose of knowledge has come to permeate the wider society, with education being among the broadest implications and developments brought thereby.

In this study, the researcher aimed to determine the relationship between the teacher's profile which was described in terms of age, gender, civil status, educational attainment, specialization and trainings attended determined by frequency and percentage; and efficacy in terms of adaptability, flexibility, growth mindset and patience and ICT skills with regards to data management, email management, internet navigation, word processing and touch typing determined by weighted mean and standard deviation.

Profile of the Respondents

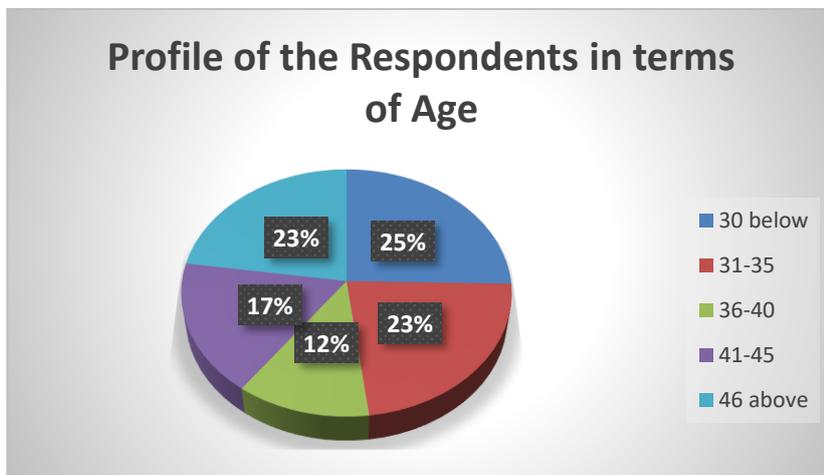


Figure 1. Profile of the Respondents in terms of Age

Figure 2 showed the distribution of respondents' age profile. Most of the teacher-respondents belonged to ages 30 and below (25%) followed by ages 31-35 and 46 and above (both 23%), ages 36-40 (12%) and ages 41-45 (17%) of the total respondents.

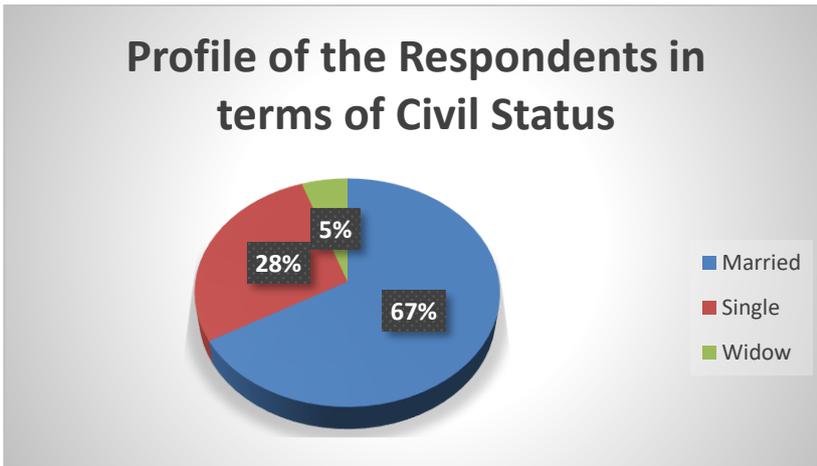


Figure 2. Profile of the Respondents in terms of Civil Status

In Figure 3, the distribution of respondents according to their civil status was shown. Sixty-seven percent (67%) of the total respondents were married, twenty-eight percent (28%) were single, and the remaining five percent (5%) were widow.

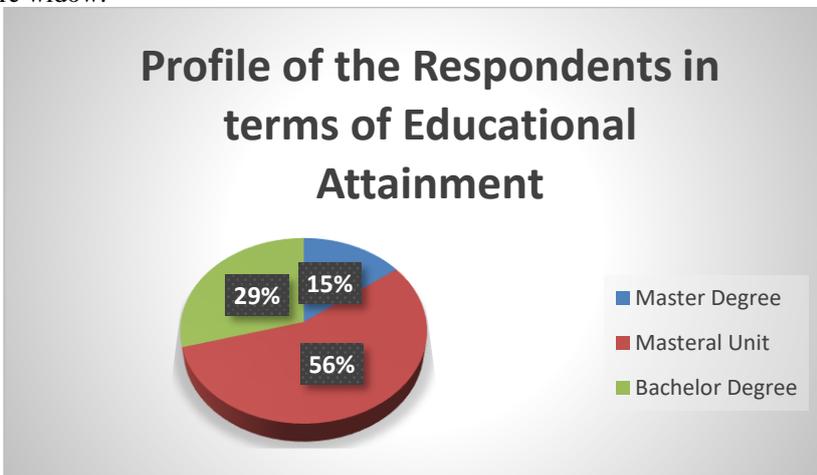


Figure 3. Profile of the Respondents in terms of Educational Attainment

Figure 4 presents the profile of the respondents in terms of Educational Attainment. Almost half of the total respondents (56%) had master's units while twenty-nine percent (29%) earned bachelor's degrees. Only fifteen percent (15%) completed master's degrees.

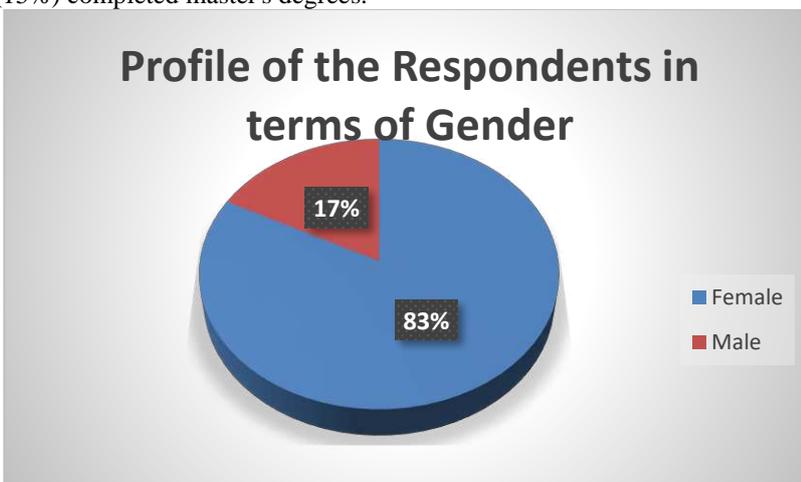


Figure 4. Profile of the Respondents in terms of Gender

In Figure 5, the profile of the respondents in terms of gender was revealed. Majority of the respondents were females (82%) and the remaining eighteen percent (18%) were to males.

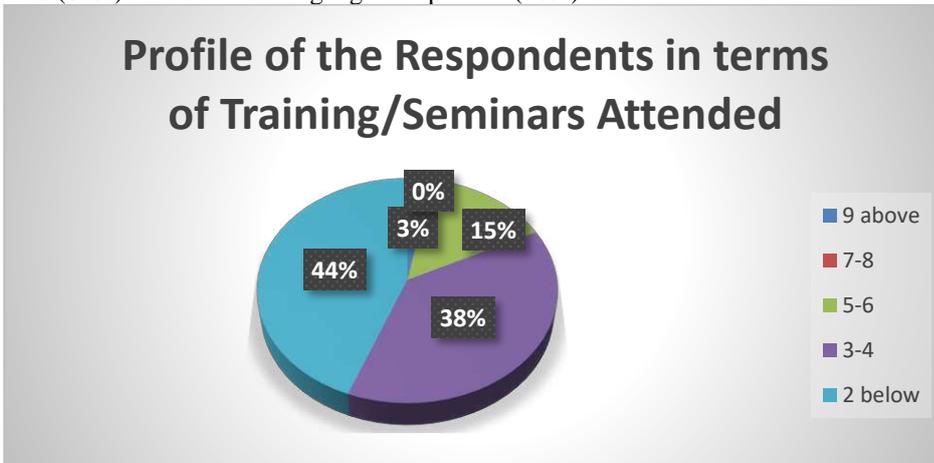


Figure 5. Profile of the Respondents in terms of Training/Seminars Attended

Figure 6 explains the distribution of teachers’ profile according to the number of trainings and seminars attended related to ICT. Most of the respondents had 2 and below trainings and seminars attended (44%), teachers with 3-4 numbers of trainings and seminars attended, thirty-eight percent (38%), no teachers had 9 or more trainings and seminars attended.

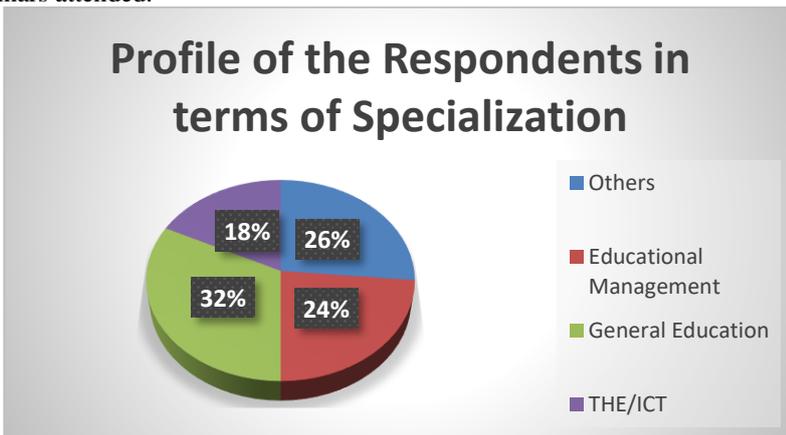


Figure 6. Profile of the Respondents in terms of Specialization

Figure 7 presents the distribution of respondents’ profile in terms of specialization. Most of the respondents (32%) were with General Education major. Twenty-six percent (26%) were with Other Specialization not stated in the choices. Twenty-four percent (24%) were Educational Management graduates, and the remaining eighteen percent (18%) were teachers with TLE/ICT as their major.

Level of Teacher’s Efficacy

These are the level of teachers’ efficacy in terms of adaptability, flexibility, growth mindset and patience.

Table 1. Level of Teacher’s Efficacy in terms of Adaptability

STATEMENT	Mean	SD	Remarks
1. Adapts to different work environment	4.44	0.60	Strongly Agree
2. Takes significant challenge in computer.	4.33	0.58	Strongly Agree
3. Does comfortably if there is new tasks.	4.29	0.63	Strongly Agree
4. Does new task with motivation.	4.44	0.62	Strongly Agree
5. Completes a task even you had little experience in doing.	4.32	0.66	Strongly Agree

Grand Mean	4.37	Strongly Agree
Interpretation	Very High	

As gleaned in Table 1, the teacher’s efficacy in terms of adaptability was very high supported by the grand (M=4.37). This meant that the respondents strongly agreed that the teachers were able to adjust with the environment and task assign to them.

The respondents strongly agreed that the teacher adapted to different work environment and did new task with motivation, which both gained the highest (M=4.44, SD=0.60 and 0.62). On the same note, they strongly agreed that teacher did comfortably if there were new tasks, obtaining the least (M=4.29, SD=0.63). This imply that the respondents perceived that the teachers could adapt to new workplace and assigned tasks effectively. According to Collie & Martin (2015), adaptability is also highly relevant to teachers given that teaching work involves responding to and managing constant change.

Table 2. Level of Teacher’s Efficacy in terms of Flexibility

STATEMENT	Mean	SD	Remarks
1. Uses different applications on computer depending on given task.	4.20	0.60	Strongly Agree
2. Adjusts to changes I have no control.	4.05	0.58	Agree
3. Thinks ways in using computer.	4.25	0.63	Strongly Agree
4. Handles pressure laden work	4.09	0.62	Agree
5. Does multiple priorities at the same time	4.20	0.66	Strongly Agree
Grand Mean	4.16		Agree
Interpretation	High		

Table 2 shows that the teacher’s efficacy in terms of Flexibility was high with a computed mean of 4.16. This meant that teachers were flexible to do new work-related tasks. As supported by Stabile (2015), effective teachers are great at being flexible, which means that they can balance several responsibilities at once and still make students smile and feel appreciated. Effectiveness emerges as the teacher matures in his or her role and gains more experience with each new class and challenge

The teacher strongly agreed that they thought ways in using computer with the highest computed mean and standard deviation of 4.25 and 0.63, respectively. On the other hand, teachers agreed that they adjusted to changes they did not have control, gaining the lowest mean of 4.05 and standard deviation of 0.58

Table 3. Level of Teacher’s Efficacy in terms of Growth Mindset

STATEMENT	Mean	SD	Remarks
1. Learns willingly more about computer.	4.67	0.58	Strongly Agree
2. Takes significant challenge in computer.	4.41	0.66	Strongly Agree
3. Considers my challenges as path to mastery.	4.47	0.64	Strongly Agree
4. Accepts criticism.	4.60	0.57	Strongly Agree
5. Finds lessons and inspiration from success of others	4.59	0.59	Strongly Agree
Grand Mean	4.55		Strongly Agree
Interpretation	Very High		

In this table, teacher’s efficacy in terms of Growth Mindset, the respondents strongly agreed that they could learn more and accept challenges in using computer. And according to Carol Dweck and Jo Boaler (2015), it is a set of belief that is not a subject to change instead it is a gift, an innate or fixed talent. It is belief in a ‘growth mindset’ assumes that ability and intelligence develop and grow through learning and experience, and that this development

is reflected in the creation of new neural pathways in the brain with its associated cognitive development. The literature indicates that teachers' mindset has direct impact on students' achievement, (Ostroff, 2016). Studies have found that when teacher believe their studies can be successful, students indeed meet expectations, (Ostroff, 2016). This was supported by the computed mean of 4.55.

The respondents strongly agreed that they were willing to learn more about the computer which gained the highest mean of 4.67 and standard deviation of 0.58. The respondents also strongly agreed that they took significant challenge in computer which earned the mean and standard deviation of 4.41 and 0.66, respectively.

Table 4. Level of Teacher's Efficacy in terms of Patience

STATEMENT	Mean	SD	Remarks
1. Acknowledges good things take time and willing to wait for the outcome of their objective.	4.48	0.58	Strongly Agree
2. Understands a scenario at work for what it is, but not get overwhelmed and stressed.	4.24	0.69	Strongly Agree
3. Make logical decisions even in hectic times at work.	4.31	0.68	Strongly Agree
4. Overcomes anguish or anxiety when things do not go that way.	4.28	0.63	Strongly Agree
5. Manages emotions from a potentially difficult situation.	4.32	0.62	Strongly Agree
Grand Mean	4.33		Strongly Agree
Interpretation	Very High		

Teacher's efficacy in terms of Patience was depicted in Table 4. The respondents strongly agreed (M = 4.33) and interpreted as Very High, that teachers could possess patience when it came to overcoming stress and other related factors positively. Patience in teaching means we dedicate considerable class time to building prior knowledge in students where there is none because we know that nothing is learned well unless it connects to something already in storage.

Item number 1, "acknowledges good things take time and willing to wait for the outcome of their objective" got the highest mean of 4.48 and standard deviation of 0.58 while item number 2, "understands a scenario at work for what it is, but not get overwhelmed and stressed" got the lowest mean of 4.24 and a standard deviation of 0.69. This implied that teachers were very patient and very positive when it came to handling stress and other related factors in accomplishing the tasks.

Extent of Teacher's Skills in Using ICT

The extent of teachers' skills in Information and Communication Technology relative to Data Management Skills, Email Management Skills, Internet Navigation Skills, Touch Typing Skills and Word Processing Skills.

Table 5. Extent of Teacher's Skills in Using ICT Relative to Data Management Skills

STATEMENT	Mean	SD	Remarks
1. Familiar with the data I have access to and identifying creative solutions for how to use it to reach goals.	4.05	0.71	Often Observed
2. Knows how to organize folders and files on your network or computer and how to upload, download, copy or move photos and files.	4.37	0.63	Always Observed
3. Knows how to locate records and use other software functions.	4.12	0.73	Often Observed
4. Participates in the long-term planning for database projects and understand how to analyze and store different types of data.	3.83	0.84	Often Observed
5. Understands what the data means to organization.	4.01	0.71	Often Observed
Grand Mean	4.08		Often Observed

Interpretation **To a Great Extent**

As presented in Table 5, the extent of teacher's skills in using ICT in terms of Data Management, teachers' skills were interpreted as To a Great Extent with an overall mean of 4.08. This meant they adapted the challenges of the 21st century teaching and learning skills that should be possessed by a 21st century teacher.

The Respondents knew how to organize folders and files on their network or computer and how to upload, download, copy or move photos and files. It was always observed and interpreted as To a Very Great Extent ($M = 4.37$, $SD = 0.63$). On the other hand, teachers participated in the long-term planning for database projects and understood how to analyze and store different types of data with the lowest mean ($M = 3.83$, $SD = 0.84$) and interpreted as Often Observed, To a Great Extent.

Table 6. Extent of Teacher's Skills in Using ICT Relative to Email Management Skills

STATEMENT	Mean	SD	Remarks
1. Emails a file to someone/another student or teacher.	4.36	0.73	Always Observed
2. Responds immediately to messages that can be answered very briefly.	4.36	0.63	Always Observed
3. Moves messages to be dealt with later to a separate folder.	4.23	0.67	Always Observed
4. Downloads files sent through email.	4.44	0.68	Always Observed
5. Attaches files in email messages.	4.44	0.66	Always Observed
Grand Mean	4.37		Always Observed

Interpretation **To a Very Great Extent**

Table 6 presented the teachers' skills in using ICT in terms of Email Management. Their email management skills were always observed, with a grand mean of 4.37. This meant that teachers were literate in using email as a means of communication.

Both items number 4 and 5 got the highest mean of 4.44 and standard deviation of 0.68 and 0.66 respectively. Teachers were able to download and attach files in sending and receiving email messages. Additionally, in managing email messages, teachers were also able to move, sort, mark, and delete email messages as this was supported by mean of 4.23 and standard deviation of 0.67.

Table 7. Extent of Teacher's Skills in Using ICT Relative to Internet Navigation Skills

STATEMENT	Mean	SD	Remarks
1. Judges the reliability of information found on the Internet.	4.03	0.73	Often Observed
2. Identifies online sources of reliable information.	4.16	0.70	Often Observed
3. Uses the Internet safely to protect yourself against bullying.	4.36	0.65	Always Observed
4. I can use the Internet safely to protect my privacy.	4.40	0.59	Always Observed
5. Registers and participates in online training programs.	4.41	0.62	Always Observed
Grand Mean	4.27		Always Observed

Interpretation **To a Very Great Extent**

In table 7, teachers' skills in using ICT in terms of Internet Navigation Skills were presented. Teachers were literate in finding information over the internet. This was supported by the grand mean of 4.27, interpreted as To a Very Great Extent. Teachers used internet to find teaching and learning related sources.

Registering and participating in online training programs was always observed, with the highest mean of 4.41 and standard deviation of 0.62. This could mean that due to the pandemic and work from home arrangement, teachers used the internet to register and participate in online training programs. However, teachers' skills in judging the reliability of information found on the internet was often observed. This could mean that teachers were not so confident in analyzing the reliability of information or sources on the internet. This was shown in the table with a mean of 4.03 and a standard deviation of 0.73.

Table 8. Extent of Teacher's Skills in Using ICT Relative to Touch Typing Skills

STATEMENT	Mean	SD	Remarks
1. Types quickly without looking at the keyboard.	3.75	0.87	Often Observed
2. Places fingers in the right keys on keyboard.	3.64	1.00	Often Observed
3. Familiar with the keys on the keyboard.	4.01	0.83	Often Observed
4. Knows the different keyboard commands	3.96	0.86	Often Observed
5. Masters the different functions of each key.	3.76	0.88	Often Observed
Grand Mean	3.82		Often Observed
Interpretation	To a Great Extent		

Teachers' skills in using ICT in terms of Touch-Typing Skills was depicted in Table 8. Their skills were often observed, with an overall mean of 3.82. Their keyboarding skills were evident but were not used properly most of the time.

Teachers' familiarization with the keys on the keyboard was observed oftentimes as this earned a mean of 4.01 and a standard deviation of 0.83. Item number 2, "places fingers in the right keys on keyboard" had a mean of 3.64 and a standard deviation of 1.00. This meant that teachers knew the placement of keys but they were not using the proper keyboarding positions of hands and fingers. Touch typing is yet another essential computer skill, which all 21st century educators must take time to master. This skill lets you significantly improve typing speed as well as accuracy. This is brought about by simply relying on your motor reflexes as opposed to sight while typing.

Table 9. Extent of Teacher's Skills in Using ICT Relative to Word Processing Skills

STATEMENT	Mean	SD	Remarks
1. Produces text using a word processing program.	4.39	0.59	Always Observed
2. Edits digital photographs or other graphic images.	3.96	1.03	Often Observed
3. Edits online text containing Internet links and images.	4.08	0.87	Often Observed
4. Files electronic documents in computer folders and subfolders.	4.29	0.69	Always Observed
5. Uses spreadsheet programs.	4.12	0.79	Often Observed
6. Creates a multimedia presentation (text, graphics, video, etc.).	4.17	0.83	Often Observed
Grand Mean	4.17		Often Observed
Interpretation	To a Great Extent		

Table 9 shows the teachers' skills in using ICT in terms of Word Processing Skills. The respondents believed that they often observed the skills stipulated in this factor which gained the grand mean of 4.17.

Producing text using a word processing program was always observed as this was the item with the highest mean ($M = 4.39$, $SD = 0.59$). It was clearly defined that teachers knew how to create documents using word processing applications. Conversely, teachers' skills in editing digital photographs or other graphic images were often observed. This item gained the least mean ($M = 3.96$, $SD = 1.03$).

Significant Relationship between the Profile and Teachers’ Skills in ICT

Minitab 14 was used in computing the data gathered and treated them statistically using Pearson’s Correlation Coefficient. The computed p-values were compared to the level of significance at 0.05 to determine the significant relationship between the profile and the teachers’ skills in ICT.

Table 10. Significant Relationship between the Profile and Teachers’ Skills in ICT Relative to Data Management Skills

Variables		r-value	Degree of Correlation	p-value	Analysis
Age	Data Management Skills	0.343	Weak	0.003	Significant
Civil Status		0.039	Negligible	0.740	Not Significant
Educational Attainment		0.070	Negligible	0.553	Not Significant
Gender		0.116	Negligible	0.323	Not Significant
Trainings/Seminars Attended		0.047	Negligible	0.687	Not Significant
Specialization		0.221	Weak	0.057	Not Significant

Table 10 presents the relationship between the Profile and Teachers’ Skills in ICT Relative to Data Management Skills.

At a glance, teacher’s profile showed insignificant relationship to their ICT skills relative to data management. Teacher’s age obtained a weak correlation based on r-value (0.343) and p-value (0.003), teachers’ specialization also had weak correlation by gaining an r-value (0.221) and p-value (0.057). Besides, teacher’s profile in terms of civil status (r-value = 0.039, p-value = 0.740), educational attainment (r-value = 0.070, p-value = 0.553), gender (r-value = 0.116, p-value = 0.323), and training/seminars attended (r-value = 0.047, p-value = 0.687) obtained a negligible correlation. All p-values except for age were higher than 0.05 level of significance which affirmed the result of the analysis. This further implied that the teacher’s profile was not relative to their acquisition of data management skills. Their profile did not correspond to their ability in organizing data and information with the use of technology.

Table 11. Significant Relationship between the Profile and Teachers’ Skills in ICT Relative to Email Management Skills

Variables		r-value	Degree of Correlation	p-value	Analysis
Age	Email Management Skills	0.321	Weak	0.005	Significant
Civil Status		0.046	Negligible	0.694	Not Significant
Educational Attainment		0.202	Weak	0.082	Not Significant
Gender		0.015	Negligible	0.899	Not Significant
Trainings/Seminars Attended		0.015	Negligible	0.899	Not Significant
Specialization		0.088	Negligible	0.451	Not Significant

The teachers’ profile and its significant relationship to the teachers’ skills in ICT relative to email management skills is shown in Table 11.

Same with Table 11, age was the only factor significantly related to teachers’ skills in ICT relative to internet navigation skills and had weak correlation. This was supported by the r-value (0.321) and p-value (0.005). Teachers’ educational attainment also had weak correlation by obtaining r-value (0.202) and p-value (0.082). On the same note, teachers’ civil status (r-value = 0.046), gender (r-value = 0.015), trainings/seminars attended (r-value = 0.015) and specialization (r-value = 0.088) were insignificantly related to the teachers’ skills in ICT with regards to

email management skills. All the p-values were higher than the 0.05 level of significance which asserted the result of analysis. The respondents' profile did not correspond to their email management skills. The table showed that age has the only significant relationship when it comes to email management skills while the other demographic profile showed a non-significant relationship.

Table 12. Significant Relationship between the Profile and Teachers' Skills in ICT Relative to Internet Navigation Skills

Variables		r-value	Degree of Correlation	p-value	Analysis
Age	Internet Navigation Skills	0.249	Weak	0.031	Significant
Civil Status		0.038	Negligible	0.744	Not Significant
Educational Attainment		0.137	Negligible	0.242	Not Significant
Gender		0.017	Negligible	0.884	Not Significant
Trainings/Seminars Attended		0.045	Negligible	0.741	Not Significant
Specialization		0.141	Negligible	0.228	Not Significant

Table 12 presents the relationship between the teachers' profile to their skills in ICT when it came to internet navigation skills.

As shown in the table, teachers' profile was insignificant to their skills in internet navigation. All the factors except age showed negligible correlation – civil status (r-value = 0.038), educational attainment (r-value = 0.137), gender (r-value = 0.017), trainings/seminars attended (r-value = 0.045), and specialization (r-value = 0.141). All the p-values except for age were higher than the 0.05 level of significance which confirmed the results analysis. On the other hand, age showed a weak correlation to the teachers' internet navigation skills. This was supported by r-value (0.249) and p-value (0.031). This meant that the teachers' profile did not correspond to their level of internet navigation skills. The table showed that age has the only significant relationship when it comes to internet navigation skills while the other demographic profile showed a non-significant relationship.

Table 13. Significant Relationship between the Profile and Teachers' Skills in ICT Relative to Touch Typing Skills

Variables		r-value	Degree of Correlation	p-value	Analysis
Age	Touch Typing Skills	0.237	Weak	0.041	Significant
Civil Status		0.026	Negligible	0.826	Not Significant
Educational Attainment		0.229	Weak	0.050	Significant
Gender		0.005	Negligible	0.966	Not Significant
Trainings/Seminars Attended		0.113	Negligible	0.335	Not Significant
Specialization		0.139	Negligible	0.234	Not Significant

Table 13 presents the relationship between the Profile and Teachers' Skills in ICT Relative to Touch Typing Skills.

At a glance, teacher's profile showed insignificant relationship to their ICT skills relative to touch typing skills. Teacher's age obtained a weak correlation based on r-value (0.237) and p-value (0.041), teachers' educational attainment also had weak correlation by gaining an r-value (0.229) and p-value (0.050). Besides, teacher's profile in terms of civil status (r-value = 0.026, p-value = 0.826), gender (r-value = 0.005, p-value = 0.966), trainings/seminars attended (r-value = 0.113, p-value = 0.335), and specialization (r-value = 0.139, p-value = 0.234) obtained a

negligible correlation. All p-values except for age and educational attainment were higher than 0.05 level of significance which affirmed the result of the analysis. This further implied that the teacher's profile was not relative to their acquisition of touch-typing skills. Their profile did not correspond to their ability in organizing data and information with the use of technology.

Table 14. Significant Relationship between the Profile and Teachers' Skills in ICT Relative to Word Processing Skills

Variables		r-value	Degree of Correlation	p-value	Analysis
Age	Word Processing Skills	0.315	Weak	0.006	Significant
Civil Status		0.074	Negligible	0.527	Not Significant
Educational Attainment		0.121	Negligible	0.301	Not Significant
Gender		0.084	Negligible	0.476	Not Significant
Trainings/Seminars Attended		0.035	Negligible	0.767	Not Significant
Specialization		0.126	Negligible	0.280	Not Significant

Table 14 presents the relationship between the teachers' profile to their skills in ICT relative to Word Processing skills.

As displayed, teachers' profile was insignificant to their skills in word processing. Every one of the variables with the exception to age showed negligible correlation – civil status (r-value = 0.074), educational attainment (r-value = 0.121), gender (r-value = 0.084), trainings/seminars attended (r-value = 0.035), and specialization (r-value = 0.126). All the p-values aside from age were higher than the 0.05 level of significance which affirmed the outcomes. Then again, age showed a weak correlation to the teachers' internet navigation skills. This was upheld by r-value (0.315) and p-value (0.006). This implied that the teachers' profile did not relate to their level of word processing skills.

Significant Relationship between the Teacher's Efficacy and Skills in ICT

Minitab 14 was used in computing the data gathered and treated them statistically using Pearson's Correlation Coefficient. The computed p-values were compared to the level of significance at 0.05 to determine the significant relationship between the efficacy and the teachers' skills in ICT.

Table 15. Significant Relationship between the Teacher's Efficacy and Skills in ICT Relative to Data Management Skills

Variables		r-value	Degree of Correlation	p-value	Analysis
Adaptability	Data Management Skills	0.642	Strong	0.000	Significant
Flexibility		0.692	Strong	0.000	Significant
Growth Mindset		0.565	Moderate	0.000	Significant
Patience		0.628	Strong	0.000	Significant

Table 15 presents the relationship between teacher's efficacy and skills in ICT relative to data management skills.

At a glance, teacher's efficacy showed significant relationship to their ICT skills relative to data management. Teacher's adaptability obtained a strong correlation based on r-value (0.642) and p-value (0.000), flexibility also had strong correlation by gaining an r-value (0.692) and p-value (0.000), just the same, patience attained a strong correlation denoted by the r-value (0.628) and p-value (0.000). Besides, teacher's efficacy in terms of growth mindset obtained a moderate correlation supported by the r-value (0.565) and p-value (0.000). All p-

values were lower than 0.05 level of significance which affirmed the result of the analysis. This further implied that the teacher's efficacy was relative to their acquisition of data management skills. Their level of adaptability, flexibility, growth mindset and patience corresponded to their ability in organizing data and information with the use of technology.

Table 16. Significant Relationship between the Teacher's Efficacy and Skills in ICT Relative to Email Management Skills

Variables		r-value	Degree of Correlation	p-value	Analysis
Adaptability	Email Management Skills	0.648	Strong	0.000	Significant
Flexibility		0.630	Strong	0.000	Significant
Growth Mindset		0.668	Strong	0.000	Significant
Patience		0.621	Strong	0.000	Significant

Table 16 presents the relationship between teacher's efficacy and skills in ICT relative to email management skills.

Briefly, teacher's efficacy showed significant relationship to their ICT skills relative to email management. Teacher's adaptability obtained a strong correlation based on r-value (0.648) and p-value (0.000), flexibility also had strong correlation by gaining an r-value (0.630) and p-value (0.000), just the same, growth mindset attained a strong correlation denoted by the r-value (0.668) and p-value (0.000) and patience obtained a strong correlation supported by the r-value (0.621) and p-value (0.000). All p-values were lower than 0.05 level of significance which affirmed the result of the analysis. This further implied that the teacher's efficacy was relative to their acquisition of email management skills. Their level of adaptability, flexibility, growth mindset and patience corresponded to their ability in managing emails.

Collie and Martin (2015) sought to develop understanding of teachers' adaptability and its association with other factors that are salient to teachers' healthy and effective functioning at work, as well as students' positive outcomes.

Table 17. Significant Relationship between the Teacher's Efficacy and Skills in ICT Relative to Internet Navigation Skills

Variables		r-value	Degree of Correlation	p-value	Analysis
Adaptability	Internet Navigation Skills	0.688	Strong	0.000	Significant
Flexibility		0.676	Strong	0.000	Significant
Growth Mindset		0.646	Strong	0.000	Significant
Patience		0.679	Strong	0.000	Significant

Table 17 refers to the teachers' efficacy in relation to their skills in internet navigation.

All factors gained strong correlation which affirmed the significance of relationship to both variables. Adaptability had the highest r-value (0.688), second was patience with r-value of 0.679. Flexibility gained an r-value of 0.676 and lastly, growth mindset earned an r-value of 0.646. All the p-values were 0.000 which were significant when analyzed. This meant that the skills of teachers relative to internet navigation corresponded to their efficacy level.

Table 18. Significant Relationship between the Teacher's Efficacy and Skills in ICT Relative to Touch Typing Skills

Variables		r-value	Degree of Correlation	p-value	Analysis
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Adaptability	Touch Typing Skills	0.548	Moderate	0.000	Significant
Flexibility		0.611	Strong	0.000	Significant
Growth Mindset		0.476	Moderate	0.000	Significant
Patience		0.618	Strong	0.000	Significant

Table 18 presents the relationship between teacher’s efficacy and skills in ICT relative to touch-typing skills. By looking at the table, teachers’ efficacy showed significant relationship to their touch-typing skills. It was shown that teacher’s flexibility obtained a strong correlation based on r-value (0.611) and p-value (0.000), patience also had strong correlation by gaining an r-value (0.618) and p-value (0.000). Besides, teacher’s efficacy in terms of growth mindset obtained a moderate correlation supported by the r-value (0.476) and p-value (0.000), just the same, adaptability attained a moderate correlation denoted by the r-value (0.548) and p-value (0.000). All p-values were lower than 0.05 level of significance which affirmed the result of the analysis. This further implied that the teacher’s efficacy was relative to their acquisition of touch-typing skills. Their level of adaptability, flexibility, growth mindset and patience corresponded to their ability in using keyboard to communicate to the computer.

Table 19. Significant Relationship between the Teacher’s Efficacy and Skills in ICT Relative to Word Processing Skills

Variables		r-value	Degree of Correlation	p-value	Analysis
Adaptability	Word Processing Skills	0.645	Strong	0.000	Significant
Flexibility		0.700	Strong	0.000	Significant
Growth Mindset		0.517	Moderate	0.000	Significant
Patience		0.557	Moderate	0.000	Significant

Table 19 presents the relationship between teacher’s efficacy and skills in ICT relative to touch-typing skills.

As revealed in the table, teachers’ efficacy showed significant relationship to their word processing skills. Teacher’s flexibility obtained a strong correlation based on r-value (0.700) and p-value (0.000), adaptability also had strong correlation by gaining an r-value (0.645) and p-value (0.000). Moreover, teacher’s efficacy in terms of growth mindset obtained a moderate correlation supported by the r-value (0.517) and p-value (0.000), likewise, patience attained a moderate correlation denoted by the r-value (0.557) and p-value (0.000). All p-values were lower than 0.05 level of significance which affirmed the result of the analysis. This further inferred that the teacher’s efficacy was relative to their acquisition of word processing skills. Their level of adaptability, flexibility, growth mindset and patience corresponded to their ability in creating documents using word processing application.

Word processors are certainly some of the most ancient applications all modern computers now feature. You will need to be in an excellent position of creating lengthy and well-formatted documents.

According to Turner, 2005, she mentioned that during the last 15 years, we in education have moved at light speed in educational technology. All of us find it difficult to catch up, keep up, and put up with fast-moving computer-based technology. Not since the introduction of the blackboard have, we seen a piece of equipment make such a difference in how we teach. Today, not only do we use computers, but we also have laptops, wireless laptops, and tablet PCs. In addition, we have the World Wide Web, scanners, CD burners, USB drives, digital cameras and digital video cameras, PDAs, as well as video and DVD players. And most educators use a variety of tools-including video, e-mail, desktop conferencing, online programs such as WebCT and Blackboard, as well as video conferencing-to teach. Thus, it is no longer acceptable for educators to be technology illiterate.

Summary of Findings

This study aimed to determine the relationship between the teacher’s profile and efficacy to the teachers’ skills in Information and Communication Technology. Specifically, it once determines the following: First, the profile of the respondents in terms of age, civil status, educational attainment, gender, specialization and trainings or seminars attended relative to ICT. Next, the level of teacher’s efficacy in terms of adaptability, flexibility, growth

mindset and patience. Then the extent of teacher's skills in using ICT relative to data management, email management, internet navigation, word processing and touch-typing skills. It also determines if the profile and efficacy have significant relationship to the teachers' skills in ICT. Most of the respondents were aged 30 and below, female, married, with Master's Units, with 3-4 seminars and trainings related to ICT attended, and teaching all subject areas. The teachers' efficacy in terms of adaptability, growth mindset and patience were very high while flexibility was high. The extent of Teachers' skills in using ICT relative to Data Management, Touch Typing and Word Processing were interpreted as To a Great Extent while Email Management and Internet Navigation skills was To a Very Great Extent. Teachers' age showed a significant relationship in terms of Data Management, Email Management, Internet Navigation skills, Touch Typing and Word Processing Skills while teachers' civil status, educational attainment, gender, specialization and trainings or seminars attended have no significant relationship. Teachers' efficacy such as adaptability, flexibility, growth mindset and patience showed significant relationship in terms of Data Management, Email Management, Internet Navigation skills, Touch Typing and Word Processing Skills.

Conclusion

Based on the findings of this study, the following conclusions were drawn, the profile of teachers were partially accepted in the use of ICT tools in chosen elementary schools in Nagcarlan District. The teachers' efficacy has significant relationship in the use of ICT tools in chosen elementary schools in Nagcarlan District.

Recommendations

Based on the conclusions of this study, the following recommendations were formulated:

1. School Heads may encourage to give teachers opportunities or time to attend trainings and seminars related to ICT.
2. Infusing ICT in teaching and learning may also be a positive impact and influence on learner's progress and achievements.
3. To be more computer and information literate, comprehensive and extensive computer literacy program for teachers may be conducted frequently to meet the needs of the teachers.
4. The schools may have a comprehensive ICT policy to intensify teaching and learning with close supervision, administration, and evaluation.
5. Using ICT in doing work tasks such as preparing lessons and reports, communicate online, search for information and other related activities may be strengthened to lessen the burden of teacher's workloads.

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