Teachers Information and Communication Technology Competencies and Self-Efficacy

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ABSTRACT

This study attempted to determine the ICT competencies for teachers and   self-efficacy. Specifically, this study aimed to answer the succeeding questions, to find out the profile of the teachers, to determine the level of ICT competencies, to find out the level of self-efficacy of the teachers. The study utilized the descriptive-correlational research design and used a questionnaire as the main instrument to gather the necessary data to answer the specific

questions of the study. Universal sampling was used to determine the sample size. Mean and standard deviation were used to determine the ICT competencies and the level of self-efficacy of the teachers. Pearson Coefficient of Correlation was employed to find out the significant relationship between the independent and dependent variables. The study aimed to determine the profile of the respondents, to find out the level of ICT competencies of teachers, the level of self-efficacy of the teachers, and to find out if there is a significant relationship between the demographic of the teachers, their level of ICT competencies, and their self-efficacy. The study revealed that majority of the teachers are females and in their early adulthood. The majority of the teachers are competent in technology concepts and operations and less competent in professional. The teaching profession may continue to attract more male teachers. Professional competence of the teachers may be developed by sending the teachers to seminar and workshops or designing in-house training for this purpose.

Keywords: *ICT competencies, teachers, self-efficacy*

INTRODUCTION

The educational system experiences significant changes as ICT advances. In our professional, academic, and personal lives, ICT is widespread. Students today are developing in a world that is marked by rapid technological advancement. The necessity of giving students the knowledge and experiences The necessity for them to be significant global citizens has been acknowledged by educators. ICT has the capacity to empower educators and students, create change, and assist in the growth of society, it is widely acknowledged of 21st century skills, however there also there is still a dearth of data to back up these views.

When teachers are computer literate and know how to incorporate ICT into the curriculum, it can affect student learning. Schools employ a range of ICT tools to manage, produce, generate, and distribute information.

In other situations, ICT has also proven crucial to the interaction between teaching and learning. For example, interactive digital whiteboards have taken the place of chalkboards in some classrooms, and the "flipped classroom" The model where students watch lectures online at home and perform more active learning during class. These strategies can help students develop higher-order thinking skills, provide fresh and imaginative ways to communicate their understandings, and better prepare themselves to deal with the ongoing technological transformation in society and the workplace. Teachers who are digitally literate and trained to use ICT may also be able to support students in this journey.

On the other side, ICT is also seen as having the potential to boost learning across the globe Considering that these tools can aid in educational system transformation, improve access to pedagogical resources, and facilitating the use of new technologies, better pedagogical practices, and improve management of education (Kuyoro et al., 2019). The introduction of various ICT into classrooms and However, research conducted over several decades in other educational environments around the world shows that this process does not always lead to the complete realization of ICT potential educational benefits. ICT has the potential to change education in schools as a powerful tool. However, for this to occur, Changes must be made in the attitudes and cultures of management, parents, students, and educators, and society, as well as in curriculum creation and delivery, as well as when pupils are currently evaluated and ready. As a result, utilizing ICT becomes extremely difficult for educators.

Added to that, Daniels (2020) give two key categories to explain how information and communication technologies are integrated into environment. educational process, use the terms ICT for education. Educators who utilize ICT as one of their teaching instruments, especially for teaching-learning goals, are referred to as using "ICT in education" when they use

general ICT components in the teaching-learning process. ICT utilization in school curricula is heavily dependent on the teachers who will utilize it to instruct the students, according to Effiong (2016). To accomplish this, teachers ICT integration It is necessary to invest into teaching and learning. ICT utilization in education and training, according to Okereke (2017), improves the effectiveness and efficiency of education. ICT is considered a   breakthrough in this regard.

Additionally, Liew (2018) discovered that the majority of teachers might not support the ICT program since they are not proficient in using ICT. ICT competency standards adoption and sufficient training, according to Hamsha (2016), will assist instructors in successfully integrating ICT into the classroom. Moreover, it is a well-known fact that ICT is growing quickly; Teachers won't be able to maintain instruction if they don't have the necessary and most recent information and abilities. up with the constantly evolving technology and will inevitably fall behind and be prevented from learning new ICT competencies (Wong et al., 2019).

FRAMEWORK

The study was anchored on The study's theoretical framework was the National ICT Competency Standard Framework (NICS) for educators from the National Computer Center. The ICT Competency Standard Framework for Teachers provides a description of the competency outcomes as well as the supplementary knowledge and abilities required to use ICT to carry out a teaching position's responsibilities in the Philippine context. It provides performance criteria for evaluating the proficiency and familiarity of instructors with ICT use in the classroom. Given that ICT is seen as a change agent for education in today's learning environment, this is crucial. Historically, educational institutions have given students limited option in terms of how programs are delivered. Institutions have a tendency to be fairly traditional

and staid in how they deliver their programs, and students are often compelled to accept what they are given. ICT applications offer a wide range of options, and by giving students more choices, many schools are now giving themselves a competitive advantage. These options include where students can learn as well as when they can learn (Oliver, 2020).

According to Suliman et al. (2018) Information and communication technology, or ICT for essence, becomes one of the primary support of civilization. Currently, many nations view the incorporation of ICT core competencies and concepts as an essential component of education. Due to the new opportunities created by the incorporation of ICT, notably A number of innovative training models in education are developing at the moment thanks to web-based technologies. How well-versed and competent a teacher is in working in the IT learning environment can greatly influence how successfully they integrate such applications.
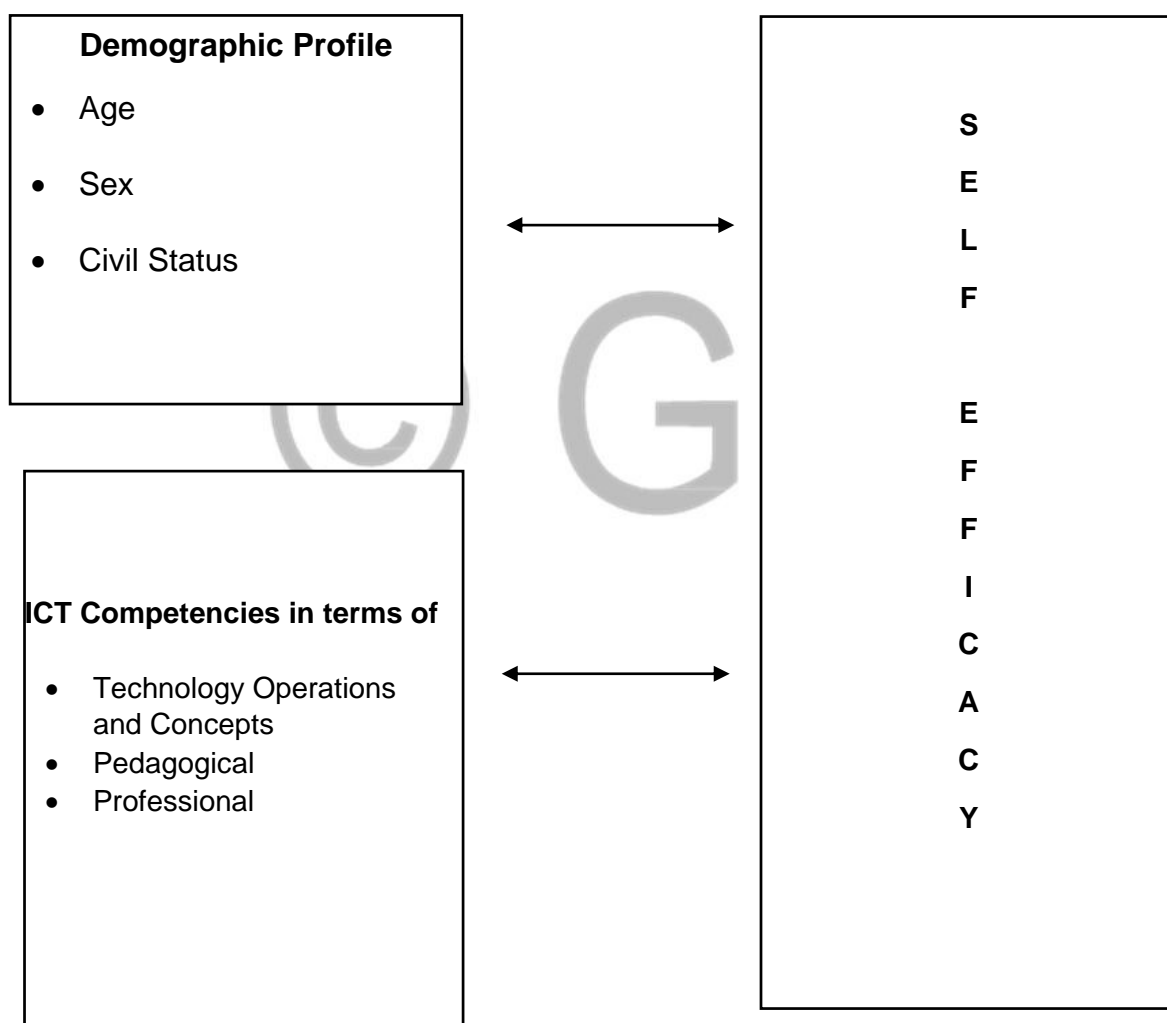
Additionally, the constructivist theory of Jean William Fritz Piaget states that students are given tools to construct their own knowledge. Constructivist learning ought the educators to embrace the idea that each learner will construct, secure, and interpret their own knowledge differently. Constructivist These techniques—which can foster higher order thinking abilities, give students original and creative ways to express what they have learned, and better prepare students to address the ongoing technological change in society and the workplace—allow students to make sense of their world through an active process (Adams, 2017) are used by teachers who are ICT literate and trained.

This is dominant when sustaining a constructivist classroom while integrating technology. Educators need to understand that learners will require a variety of different experiences. Also, activities need to be incorporated so that learners experience real world relevance while using technology. One benefit of using technology for instruction in today's world is that communication

technology has agreed for constructivist principles to still be continued; constructivist see technology as a dynamic learning tool.

Figure 1 on the next page it provides the interaction of the Independent and Dependent Variables

SCHEMATIC DIAGRAM OF THE STUDY

Demographic Profile		SELF EFFICACY
• Age		
• Sex	⟷	
• Civil Status		
ICT Competencies in terms of		
• Technology Operations and Concepts	⟷	
• Pedagogical		
• Professional		

STATEMENT OF THE PROBLEM

This study attempted to determine the ICT Competencies Of Teachers and Self-efficacy. Specifically, this study aimed to answer the succeeding questions.

1. What is the profile of teachers in terms of:

    1.1 age,

    1.2 sex; and

    1.3 civil status?

2. What is the level of ICT competencies of teachers in terms of:

    2.1 Technology Concepts and Operations;

    2.2 Pedagogical Competence; and

    2.3 Professional Competence?

3. What is the level of self-efficacy of the teachers?

4. Is there a significant relationship between the profile of the teachers, their level of ICT competencies, and their self-efficacy?

DESIGN

A Descriptive Correlational design was utilized in this study. According to Panda (2022), Descriptive Correlational design is used in research studies that aim to provide static pictures of situations as well as establish the relationship between different variables. A Descriptive design was used to determine the students level of motivation considering the level of professional attitudes and values of the teachers, and the students' perceptions of the teachers' level of professional expertise. Correlational design was also employed to see if there is a significant connection between the students level of motivation and the teachers professional attitudes, values and professional knowledge and skills. (McBurney & White, 2018)

SETTING

The study was conducted at North City Central School. North City Central is a central type of school, under large category of schools. It is situated at VF. Cabaraban St., Barangay Puntod. It is 3 kilometers away from the City Proper (Divisoria) and 1.4 kilometers away to Oro Port or Pier of Macabalan, Cagayan de Oro City. It is located at Baragay Puntod, Cagayan de Oro City. It is 20 meters away from the National road (Highway); accessible in any paved or levelled type of transportation such as private 4-wheel vehicles, private motorcycle, pedicab, tricycle, jeepney, habal-habal, taxi, or hiking and walking for some learners living near the school.

The school is composed of 13 buildings with 41 functional classrooms, 7 supplementary rooms used as School Library, LRMDS, ALS, SBM, Guidance Counsellor Office, Home Economics room, feeding area, a school canteen, SPTA Office, the school is working on the "Teen Center" of the school which serves as the playground and school park at the same time, where learners can expound their physical activities and psychosocial or emotional support.

RESPONDENTS AND SAMPLING PROCEDURE

The respondents of the study were the 44 elementary school teachers of North City Central School. Total enumeration was used since there were only few teachers in the school by total or complete enumeration, all members of the whole population are measured (Sage, 2020).

INSTRUMENTS

The researchers used a checklist questionnaire to gather data, modified from Moralista and Oducado (2020); UNESCO ICT Competency Framework for Teachers (2019); and Alvarez (2020). It is administered a 5 Point Likert scale, a method of rating system that measures

perceptions directly towards the respondents which allows the respondents to express how they feel the statement. The first part of the questionnaire generated data on the age, sex, and civil status of the teachers, as well as their profile. The second section sought to determine the instructors' degree of ICT competency, while the last questionnaire produced information on the teachers' self-efficacy.

DATA GATHERING PROCEDURE

The dean of the College of Education, Dr. Martina Brobo, gave the researchers permission to perform the study in order to collect the necessary data. Following the dean's consent, a second letter was written to the superintendent of the school division requesting permission to perform the study at North City Central School. Following the superintendent's permission, a new letter was written to the principal of North City Central School asking her to distribute the questionnaire to the instructors. After the approval of the principal the researchers personally approached the target respondents and explained the purpose, risks, and benefits of the study. Likewise, they were assured that utmost confidentiality would be strictly observed and the data would only be used solely for this study. However, if there is an opportunity to present and publish the paper, then this is the only reason that the results can be shared. Moreover, it was also emphasized that they are free to refuse or discontinue their participation in the research and are free not to answer any item in the questionnaire. The respondents were given enough time to answer, after which the answered questionnaires were personally retrieved by the researchers with their signature on the informed consent. The retrieved questionnaires were submitted to a statistician for data processing.

STATESTICAL TREATMENT OF THE STUDY

To acquire better understanding of the data the following tools were used: Frequency and percentage distribution were used for problem 1. The average and standard deviation were used to calculate the instructors' ICT competency and level of self-efficacy. To determine the significant correlation between the instructors' demographic profile, their level of ICT competency, The Pearson Product Coefficient of Correlation was used to compare participants' levels of self-efficacy.

RESULT AND DISCUSSION

Problem 1. 1. What is the profile of Teachers in terms of:

1.1 Age;

1.2 Sex; and

1.3 Civil Status?

Table 1

Profile of the Teachers

Variables	Frequency	Percentage
Age		
Below 25	18	40.9
25-35	11	25.0
36-45	8	18.2
46 and above	7	15.9
Total	**44**	**100**
Sex		
Male	3	6.8
Female	41	93.2
Total	**44**	**100**
Civil Status		
Single	15	34.1
Married	29	65.9
Total	**44**	**100**

Table 1 presents the profile of the teachers. It can be noted in the table that majority 18 or 40.9 percent of the teachers fall into the category of people under 25. Following this comes the age range, where 11 people, or 25% of the population, fall between the ages of 25 and 35.

The age bracket 36-45 and 46 and above got the lowest frequency 8 or 18.2 percent and 7 or 15.9 percent respectively. This suggests that the professors are millennials who are in their early adult years.

Additionally, the bulk of teachers—41 or 93.2 percent—are female, with just 3 or 6.8 percent being male. This suggests that female instructors are the majority in the teaching profession.. The finding collaborates with the outcomes of the study conducted by Regalado (2017) disclosing that teaching is a woman-dominated profession. There are more female school teachers than male, both in the public elementary and secondary schools.

Regarding their marital status, the bulk of teachers—29, or 65.9 percent—are married, while only 15 or 34.1 percent are single. This suggests that the vast majority of teachers have already found their lifetime partner, settled down and established their own family. This supports the finding as the age bracket of the teachers where majority of them are already in their adulthood which is a marrying age among Filipinos.

Problem 2. What is the level of ICT competency of the teachers in terms of:

   2.1 Technology Concepts and Operations;

   2.2 Pedagogical Competence; and

   2.3 Professional Competence?

Table 2

Teachers' Technology Concepts and Operations

Indicators	Mean	SD	Description	Interpretation
1. Identify and define the functions of the main components (monitor, CPU, keyboard, and mouse) of the computer.	4.59	0.58	Strongly Agree	Very High
2. Identify and define the functions of computer peripherals (i.e. printer, scanner, modem, digital camera, speaker, etc.)	4.47	0.69	Strongly Agree	Very High
3. Properly connect main components, configure peripherals and install drivers when required	4.11	0.92	Agree	High
4. Configure computer settings of various software and hardware	3.70	0.95	Agree	High
5. Understand the basic functions of the operating system	4.04	0.86	Agree	High
6. Organize and manage computer files, folders, and directories	4.29	0.76	Strongly Agree	Very High
7. Use storage devices (i.e. hard disk, diskette, CD, flash memory, etc.) for storing and sharing computer files. Create back-ups of important files	4.31	1.01	Strongly Agree	Very High
8. Protect the computer from virus, spyware, adware, malware, hackers etc.	3.95	0.98	Agree	High
9. Use a word processor to enter and edit text and images	4.34	0.96	Strongly Agree	Very High
10. Format text, control margins, layout and tables	4.45	0.79	Strongly Agree	Very High
11. Print, store and retrieve text documents from a word processor	4.34	0.88	Strongly Agree	Very High
12. Use a presentation package to add text and sequence presentation.	4.34	0.93	Strongly Agree	Very High
13. Enhance slide presentations by adding sound, customizing animation, and inserting images.	4.21	1.04	Strongly Agree	Very High
14. Print presentation handouts and store slide presentations	4.36	0.94	Strongly Agree	Very High
15. Send and receive emails with attachments, manage emails and use LAN and Web-based mail servers	4.38	0.89	Strongly Agree	Very High
Overall Mean	**4.62**	**0.88**	**Strongly Agree**	**Very High**

Table 2 discloses the level of ICT competencies of the teachers in terms of Technology

Concepts and Operations. It can be observed in the table that out of fifteen indicators eleven got

an interpretation of very high and only four obtained an interpretation of high. The overall mean

rating 4.62 with a standard deviation of 0.88 described as strongly agree and interpreted as very high. This implies that the teachers have a very high extent of competency in terms of computer and technology operations. Further this means that the teachers can confidently show their understanding for technology concepts, systems, and operations, meaning, and They are competent at a a wide variety of tasks in many applications related to technology. This is in line with the research results by Caluza et al. (2017), which shown that the majority of the instructor respondents possessed a basic understanding of how to use computers and other informational devices. The respondents are skilled in identifying and defining the functions of the essential computer components.

The top-rated indicator out of the fifteen is also shown in table 2 on the previous page. The indicator identifies and defines the functions of the by using a mean computer's primary components (such as the display, CPU, keyboard, and mouse) rating of 4.59 and a standard deviation of 0.58. This means that the Teachers are familiar with the fundamentals of computer use. The discovery backs with the findings of a study by Caluza et al. (2017) that showed teachers have a foundational understanding of ICT. This does not, however, imply that instructors are already proficient in ICT. Teachers must be adept in using technology for teaching and other related duties, including knowing when and when to utilize it.

On the other hand, the table also shows the indicator that obtained the lowest mean rating. The indicator, Configure computer settings of various software and hardware got the lowest mean rating of 3.70 and a standard deviation of 0.95 described as agree and interpreted as high level. This means that the teachers will do something in improving this competency so that if the programs installed in the unit will not function the teachers have the ability to fix it.

Perhaps the reason why the teachers rated this indicator low because this is highly technical, and they were not train for this purpose.

Table 3

Teachers' Pedagogical Competence

Indicators	Mean	SD	Description	Interpretation
1. Design rubrics for assessing student performance in t the use of various technologies	4.52	0.82	Strongly Agree	Very High
2. Analyze assessment data using spreadsheets and statistical applications	4.13	0.86	Agree	High
3. Use appropriately slide presentations, videos, audio, and other media in the classroom	4.16	0.89	Agree	High
4. Teach students to use various multimedia materials for the reports and class presentations	4.18	1.01	Agree	High
5. Use emails, group sites, blogs, etc. for disseminating information directly to students, colleagues, and parents.	3.95	1.11	Agree	High
6. Make use of databases, spreadsheets, concept mapping tools and communication tools, etc.	3.84	0.92	Agree	High
7. Use emails, group sites, blogs, etc. to collect information and feedback directly from students, colleagues, and parents	4.00	1.01	Agree	High
Overall Mean	**4.10**	**0.95**	**Agree**	**High**

Table 3 displays the Teachers' level of Pedagogical Competence**.** All the indicators of pedagogical competence were rated high except item number one which was rated very high by the teachers. This implies that the teachers' are competent enough in using ICT based mode of instructional delivery such as power point presentation, the used of multimedia presentation, and other technology-driven instructional mode of delivery. The results showed The degree of agreement is rated as high with an overall mean of 4.10 and a standard deviation of 0.95, demonstrating that the teachers are quite skilled in implementing ICT-based instruction. This

suggests that the teachers are pedagogically skilled in integrating ICT into their delivery of instruction. The discovery complemented Sanchez et al.'s study findings from 2022, which showed that teachers effectively use ICT to enhance and assist teaching and learning.

The most highly regarded indicator by the responders is displayed in the table. Item: Create rubrics to evaluate how well students use various technology with a mean rating of 4.52, which is considered to be highly agree and is considered to be at a very high level, with a standard deviation of 0.82. This suggests that the teachers used ICT in designing alternative and authentic assessment tool such as the rubrics to assess the performance of the learners. Sanchez et al. (2022) collaborated the study's findings, highlighting the fact that the teachers had high levels of competency in the pedagogical domain.

As opposed to that, the table also reflects the item rated lowest by the teachers. Item, Make use of tools for concept mapping, databases, spreadsheets, communication, etc. got the lowest mean rating along the seven items (7). This means that for the teachers to be more effective in their teaching, they must make progress in this area. Perhaps the educators must be exposed to these productivity tools for them to become experts on using these tools relative to their teaching career. This is in accord with the finding of the study conducted by Puno (2021) stating that teachers can explain and discuss ICT-related tasks without having gone through the actual procedure.

Table 4

Teachers' Professional Competence

Indicators	Mean	SD	Description	Interpretation
1. Identify educational sites and portals suitable to my subject area	4.25	0.83	Strongly Agree	Very High
2. Join online communities, subscribe to relevant mailing lists and online journals	4.90	5.77	Strongly Agree	Very High
3. Review new and existing software for education	3.68	0.98	Agree	High

4. Recommend useful and credible web sites to colleagues	3.81	0.92	Agree	High
5. Actively participate in online forums and discussions	3.93	0.84	Agree	High
6. Publish (formal /informal) research on the use of ICT in education	3.89	0.86	Agree	High
7. Share lesson plans, worksheets, templates, and teaching materials through course web sites	9	0.84	Agree	High
Overall Mean	**4.01**	**1.58**	**Agree**	**High**

Table 4 reveals the teachers' level of ICT professional competence. It can be observed from the table that two (2) indicators got very high interpretation while five (5) indicators obtained high interpretation. As reflected by the overall mean of 4.01 and a standard deviation of 1.58 described as agree and interpreted as high. It can be inferred that the teachers have a high level of ICT professional competence. Further, the data imply that the teachers are capable enough in identifying the web sites where they can get information that may be used in their teaching career. Likewise, they possess the capability of using different media platform to be more effective in their teaching career. The finding finds support to the study conducted by Caluza et al. (2017) which showed that teachers possess a basic understanding of ICT. This does not, however, imply that instructors are already proficient in ICT. Teachers must be adept in using technology for teaching and other related duties, including knowing when and when to utilize it.

Further, the table also shows the indicators rated highest by the teachers. Item, *Participate in internet forums, join pertinent mailing lists, and read online journals,* obtained the highest mean rating of 4.25 and a standard deviation of 0.83 described as strongly agree and interpreted as very high. This implies that the teachers had the initiative to grow professionally by participating in online training and subscribing to online journals. Further, these are ways and means that teachers can update their knowledge and skills with the latest trends and innovations in teaching. Workshops and seminars can address prevalent challenges and difficulties business

professionals face daily. Participants can share their ideas and views on tackling the problem, which can provide a new perspective on how to address it (Arya, 2023).

However, the data also reveals a sign that the respondents gave a poor assessment. The indicator with the lowest mean score of "review new and existing educational software" was 3.68 and a standard deviation of 0.98 described as high and interpreted as high among the seven indicators. This means the teachers are not so competent to assess new software in education. This can be attributed to the fact that this is so technical, and the teachers are not trained for this purpose.

Table 5 on the next page shows the summary table of Teachers' ICT competencies. It can be observed from the table that the highest competency was in technology concepts and operations with a mean rating of 4.62 and a standard deviation of 0.88 described as strongly agree and interpreted as very high. This suggests that the teachers can understand technological concepts and capable of operating the computer. This is supported by the study of Pasco (2023) which reveal that the overall mean score as an entire group on their intention It is acceptable to incorporate ICT into teaching and learning.

On the other side, the concept with the lowest overall mean rating—4.01, classified as agree—and the highest standard deviation was professional competence. This implies that the teachers can do something to enhance their competency along this area. Further, they can join in online sessions and for them to update their competency along this line.

Problem 3. What is the level of self-efficacy of the teachers?

Table 5

Summary of Teachers' ICT Competencies

Indicators	Mean	SD	Description	Interpretation
Technology Concepts and Operations	4.62	0.88	Strongly Agree	Very High
Pedagogical Competence	4.10	0.95	Agree	High
Professional Competence	4.01	1.58	Agree	High
Overall Mean	**4.24**	**1.14**	**Strongly Agree**	**Very High**

Table 6 on the next page reveals the Self-Efficacy of Teachers from the table, it can be seen that the teachers' level of self-efficacy is very high as revealed by the overall mean of 4.28 and a standard deviation of 0.75 described as strongly agree and interpreted as very high. It can also be observed in the table that out of fifteen items only two items got an interpretation of high against thirteen indicators having an interpretation of very high. This implies that the teachers have a very high level of self-efficacy. Thus, they have the beliefs about their capabilities to exercise control over their own activities. According to Celetti (2023) self-efficacy beliefs can significantly impact an individual's goals, desires, actions, and accomplishments. People with strong self-efficacy believe they can consistently achieve their goals, which can often dramatically affect their actions.

The table also presents the indicator rated highest by the respondents. The indicator, *I will be able to successfully overcome many ICT challenges* and *I can solve most ICT problems if I invest the necessary effort* was rated highest, with a mean of 4.45 and a standard deviation of 0.66, and was regarded as strongly agree and interpreted as very high. This suggests that the teachers were confident in their capacity to accomplish and get beyond challenges in life. More so, they have the belief that they can overcome whatever adversities in life that they will be facing.

On the other hand, *If someone opposes me in using ICT, I can find the means and ways to get what I want*, was the indicator rated lowest by the respondents. This means that they have difficulty in overcoming the difficulty if some one opposes them if they have something to pursue.

Table 6

Teachers' Self-Efficacy

Indicators	Mean	SD	Description	Interpretation
1. I can always manage to solve ICT difficult problems if I try hard enough.	4.27	0.78	Strongly Agree	Very High
2. If someone opposes me in using ICT, I can find the means and ways to get what I want.	3.72	1.07	Agree	High
3. It is easy for me to stick to my aims and accomplish my goals with the use of ICT.	4.06	0.89	Agree	High
4. I am confident that I could deal efficiently with unexpected problem in ICT.	4.22	0.77	Strongly Agree	Very High
5. I can solve most ICT problems if I invest the necessary effort.	4.45	0.66	Strongly Agree	Very High
6. I can remain calm when facing ICT difficulties because I can rely on my coping abilities.	4.38	0.72	Strongly Agree	Very High
7. When I am confronted with a ICT problem, I can usually find several solutions.	4.13	0.76	Agree	High
8. If I am in trouble with ICT, I can usually think of a solution.	4.30	0.66	Strongly Agree	Very High
9. I can usually handle whatever ICT problem comes my way.	4.27	0.72	Strongly Agree	Very High
9. I believed I can succeed at almost ICT endeavor to which I set my mind.	4.34	0.77	Strongly Agree	Very High
11. I am confident that I can perform effectively on many different ICT tasks.	4.36	0.65	Strongly Agree	Very High
12. I will be able to successfully overcome many ICT challenges.	4.45	0.66	Strongly Agree	Very High
13. I will be able to achieve most of the ICT goals that I have set for myself.	4.41	0.75	Strongly Agree	Very High
14. When facing a difficult ICT task, I am certain that I can accomplish them.	4.43	0.66	Strongly Agree	Very High
Overall Mean	**4.28**	**0.75**	**Strongly Agree**	**Very High**

Table 7 on the next page shows the correlation analysis between the profile, ICT competencies of the teachers. It can be deduced from the table that civil status with r-value of 0.48 and p-value of 0.001<0.05; technology concepts and operations with r-value=0.538 and Pedagogical competency has an r-value of 0.689 and a p-value of 0.0000.000, and p-value=0.0000.05; and r-value 0.435 and p-value 0.003<0.05. This warrants the rejection of null hypothesis. Thus, civil status, technology concepts and operations, pedagogical competence, and professional competence had a significant relationship of self-efficacy of the teachers. The higher is their competency the higher is their self-efficacy. Thus, the null hypothesis is rejected on this premise. Therefore, civil status, technology concepts and operations, pedagogical competence, and professional competence are significantly associated with the self-efficacy of the teachers.

On the other hand, age and sex had no significant bearing onthe level of self-efficacy of teachers. This proves that the degree of self-efficacy is unaffected by age or gender of the teachers.

Table 7

Correlation Analysis Between the Profile, ICT Competencies, and Self-Efficacy

Variables	r-value	p-value	Decision on Ho	Interpretation
Age	0.018	0.906	Accept	Not Significant
Sex	0.129	0.404	Accept	Not Significant
Civil Status	0.481**	0.001	Reject	Significant
Technology Concepts and Operations	0.538**	0.000	Reject	Significant
Pedagogical Competence	0.689**	0.000	Reject	Significant
Professional Competence	0.435**	0.003	Reject	Significant

CONCLUSIONS

Both for teachers and students, information and communication technology is improving the effectiveness and efficiency of the learning process. The use of ICT tools in the classroom makes it simpler for teachers and it can help them   to employ the most effective methods for bringing out the best in their students.

Given the significant findings of the study, the following conclusions are offered.

RECOMMENDATIONS

On the basis of the study's findings, the following is suggested.

1.The teaching profession may continue to attract more male teachers. The school administration are encouraged to attract male teachers because they are also good teachers.

1. Professional competence of the teachers may be developed by sending the teachers to seminar and workshops or designing in-house training for this purpose.

3. By maintaining the method of instruction delivery, teachers' self-efficacy can grow.

4. The self-efficacy of the students can be maintained through maintaining the strategy of the teachers.

5. Further studies may be conducted in the near future to validate the results of this study.

LITERATURE CITED

Adam, (2017) ICT Competencies of Students and Teachers Retrieved from

https://samphina.com.ng/ict-skills-competencies-junior-secondary school- teachers-effective-service-delivery/   Retrieved on November24, 2022

Arya College (2023) Importance of Seminars, Workshops, and   Presentations in

Students'Life.https://www.aryacollege.org/resources/importance-for-workshop-and-seminar-in-student-life

Aslan, A., & Zhu, C. (2016) Pre-Service Teachers' Perceptions of ICT and TPACK Competencies Retrieved from https://sciendo.com/article/10.2478/atd-2021-0013

Retrieved on November 24, 2022

Caluza, et al. (2017). An Assessment of ICT Competencies of Public School Teachers:Basis for Community Extension Program. Retrieved from https://www.researchgate.net/publication/315436700_An_Assessment_of_ICT_Competencies_of_Public_School_Teachers_Basis_for_Community_Extension_Program Retrieved on November 24, 2022

Ciletti, Nikki. (2023). What Is Self-Efficacy? Psychology, Theory, And Applications. https://www.betterhelp.com/advice/psychologists/what-is-self-efficacy-psychology-theory-and-applications/ Retrieved on November 24,2022

Grabe, (2018) ICT Integration in Education: Incorporation for Teaching and Learning Improvement Retrieved from https://files.eric.ed.gov/fulltext/EJ1086419.pdf

Retrieved on November 24, 2022

Guavara, (2018) The Importance of ICT for Students as a Competence for their Future Professional Performance Retrieved from https://naerjournal.ua.es/article/view/v8n2-8 Retrieved on November 24, 2022

Gunton, (2017) Effects of ICT on Teaching and Learning: A Review of Related Literature Retrieved from https://www.ijscia.com/wp content/uploads/2020/10/Volume1-Isuue-2-Sep-Oct-2020-No.20-119 123.pdf Retrieved on November 24, 2022

Murray, (2016) Relationship Between Teacher ICT Competency and Acceptance and Use of School Management System Retrieved from https://www.google.com/url?sa=t&source=web&rct=j&url=https://files.eric.ed.gov/fulltext/EJ1116214.pdf&ved=2ahUKEwjUxcrp9NT6AhVIcGwGHdebAFsQFnoECCIQAQ&usg=AOvVaw1VlYD0WPhG9YD2pYYapQvV   Retrieved on November 24, 2022

Puno, Melita. (2021). Information and Communication Technology Needs of Teachers in District 8, City of Malolos: Basis for ICT Intervention Program:

http://ijeais.org/wp-content/uploads/2021/5/IJAMR210521.pdf Retrieved on December 7,2022

Regalado, Manolita. (2017). Career Mobility and Gender: A Descriptive Study of Selected DepEd Teachers in Iligan City. https://www.researchgate.net/publication/316967871_Career_Mobility_and_Gender_A_Descriptive_Study_of_Selected_DepEd_Teachers_in_Iligan_City

Retieved on December 7,2022

Sanchez, G., Bautista, H., and Lisayen, J. (2022). Exploring the ICT Competence of Cervantes District Teachers: Springboard for Extension Program. https://ispsc.edu.ph/e-dawaueqs8723 Retrieved on December 7,2023

Tapscott, (2019) Self-Assessment   in Core Technology Competencies and Their Professional Development Needs in ICT Retrieved from https://files.eric.ed.gov/fulltext/EJ856113.pdf Retrieved on December 7, 2022

Tinio, (2016) ICT Competencies for Teacher: Basis for Community Extension Program Retrieved from https:// An Assessment of ICT Competencies of   Public School Teachers: Basis for Community Extension Program.com Retrieved on December 7, 2022