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# COMPETENCE AND MOTIVATION ON ICT INTEGRATION AMONG TEACHERS IN MISAMIS ORIENTAL

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*Abstract:* ICT is one of the most important elements in the ever changing technological world. Due to a limited familiarity with ICT tools regarding teachers' technological competence, they may exhibit reluctance to embrace change or may lack the confidence to integrate technology into their instructional practices. This study investigated on the levels of teachers' ICT ability and motivation for ICT integration into their teaching in Misamis Oriental, specifically in Tagoloan East District. Specifically it determined teachers ICT competence as to Technology Operations and Concepts, Social and Ethical, Pedagogical, Professional and on teachers' motivation on ICT integration in their teaching when categorized into attitude, perceived usefulness and perceived ease of use.

A descriptive- correlational research methodology was utilized in this study. Pearson's correlation coefficient was used to determine the significance of the link between the dependent and independent variables. The study's findings revealed that all respondents had advanced levels of ICT skills across all factors. Respondents' motivation for ICT integration in the classroom was very high. However, there was no significant association found between perceived ease of use, concepts, and technology operations. Similar outcomes hold for perceived usefulness and pedagogical competence. Although not all respondents was very highly competent in ICT, they have a very high level of motivation to integrate ICT in teaching. It is recommended that teachers should participate in workshop-style training sessions on how to use technology to enhance their ICT professional competence.

Keywords: ICT Integration, Motivation, Pedagogical Competence, Professional Development, Technology Operations

## I. INTRODUCTION

Technology has altered the world and continues to do so, thus it provides both enormous benefits and terrible concerns. ICT (Information and Communication Technology) is one of the most significant components of today's technology, which is rapidly adopting and developing the world. The way people live and work in the modern world has been completely transformed by information and communication technology (ICT). It has become crucial to include ICT into educational systems due to how predominant it is becoming in all facets of human life. ICT integration into teaching practices frequently necessitates a change in perspective and instructional strategies. Due to a lack of experience with ICT tools or worries about teachers' own technological aptitude, some of them may be hesitant to change or lack of confidence to incorporate technology into their lessons. The use of ICT in education has the potential to improve teaching methods, learning outcomes, and student readiness for the demands of the workforce in the 21<sup>st</sup> century.

Tagoloan East District has ICT classrooms and sufficient supplies to educate all of the students the essential ICT skills and knowledge. Research by Emiliani et al. 2020 shows that insufficient proficiency with ICT software tools and appliances, as well as a lack of understanding of ICT-related tasks, contribute to teachers' lack of confidence when utilizing ICT in the classroom. Integration of ICT into pedagogical practices will seriously be compromised if teachers possess little or no knowledge of ICT. This could include basic computer literacy, software proficiency, or knowledge of educational applications. Teachers may be reluctant to integrate ICT into their lesson plans because they are afraid of the unknown, lack confidence, or think that older techniques are more efficient. Even if they have all the materials, they would be useless if the teachers did not know how to use them or were not skilled at using them. Similarly, Wolff et al. (2020) reiterate that skill and knowledge, if not addressed conclusively, could inhibit the effectiveness of ICT use in teaching and learning. Therefore, in order to thrive and keep up with new teaching techniques and technologies, educators must be able to adapt to change. As part from this, Rachmawati (2019) suggested that schools and other educational institutions which are supposed to prepare students to live in "a knowledge society" need to consider Information, Communication, and Technology (ICT) integration in their curriculum. Integration of ICT in education refers to the use of computer-based communication. Specifically, it incorporates into daily classroom instructional process.

DepEd strengthens the Information Communication and Technology through implementing DepEd Order no. 1, s. 2007, known as Strengthening the Information and Communication Technology (ICT) Governance of the Department of Education. Additionally, the department has started and carried out ICT projects and programs in the fields of management, governance, and basic education over the years. Due to changes in teaching and learning standards, instructors in Tagoloan District, Division of Misamis Oriental,

would need to acquire skills relevant to learning contexts. As a result, the function of the teacher is expanded and changed from that of a single knowledge transmitter to one of a facilitator, mentor, and integrator of new ICT medium.

The use of ICT in education has drawn more attention in the last several years. With the launch of its K-12 curriculum, there has been a strong emphasis on using ICT in almost every topic. Numerous nations have put policies in place to promote the use of ICT in education, and researchers have undertaken studies to look at the effects of ICT integration on teaching and learning. ICT integration may have advantages, but there are also issues with teacher preparation, technology access, and the need for strong pedagogical strategies to facilitate technology integration.

The effectiveness of incorporating technology into teaching methods is greatly influenced by the competency and motivation of teachers in this regard. In order to optimize student learning results, educators must possess the requisite abilities and expertise to utilize technology efficiently and cultivate a positive outlook towards it.

This research investigates on Teachers' competence and their motivation on ICT integration in Tagoloan East District, Division of Misamis Oriental. The researcher hopes that this study would help the teachers enhance their skills in applying ICT to improve their teaching and learning process.

## **Related Literature and Studies**

## **Teacher's Competence**

According to Bariu, Chun and Boudouaia (2022) teachers' ICT implementation is of growing importance in classrooms; currently, technology has become an essential ingredient of teachers' practice. The study investigates how instructors' competencies affect the use of ICT in higher education. Although teachers' competencies are crucial for the successful deployment of ICT, the empirical literature has revealed a significant research vacuum.

Moreover, Sheila, Zhu, Kintu and Kataike (2021) state that teachers' competencies on ICT in the 21st century require a regular update on knowledge and skills to be in tandem with the technology dynamic to implement it in classroom instruction. Collaboration in ICT knowledge and integration is crucial for instructors and students to properly navigate the massive amount of information needed to execute complex tasks in the global economy.

## **Technology Operations and Concepts**

Batan, Treceñe, Delos Santos and Paler (2022), revealed that teachers reported having a basic competency in comprehending and using the Internet and network applications and resources effectively. Teachers also exhibit a foundational level of proficiency in information and data management knowledge and abilities. In the twenty-first century, Educators need to be proficient in technology principles and operations Basic hardware and software configuration, basic video editing, setting up web browsers and help applications, using various teleconferencing apps efficiently, and properly crediting both online and offline sources of information are all areas in which teachers can obtain training.

In the study conducted by Balagosa and Samson (2022), it was revealed that teachers demonstrated average skill in the use of ICT, notably in the areas of Microsoft Word, PowerPoint, and Excel. Their involvement in the numerous trainings and seminars aimed at enhancing their ICT-using abilities may be the cause of this. It might also be the case that family members who were enrolled in school tended to use the three areas the most at home and in school. As a result, teachers are already conversant with the programs and have learned how to use them.

## Social and Ethical Competence

Poenaru (2021) stated that humanity goes through one of the most dynamic stages, characterized by profound structural changes in all areas of life. Computer science, the robot era, the digital era, and other factors all contributed to the formation of a new living environment and a new awareness of them. The job of the teacher has changed dramatically in a short amount of time. Higher education instructors have had to shift their attention to new strategies that guarantee teaching and assessment continuity in light of the ongoing pandemic.

In a study conducted by Marcial (2018), upon researching the enabling and impeding elements of technology-assisted teaching and learning in developing nations, he discovered that time constraints, a dearth of administrative and technical support, and a lack of technological flexibility are the impediments to ICT integration in the classroom. On the other hand, portability, usability, creativity, independent learning, dedication, and administrative support are the enabling elements. In addition, he clarified that despite the inevitable challenges that arise when integrating technology into the classroom, instructors have noticed a favorable shift in their use of it.

## **Pedagogical Competence**

In actuality, technology is influencing every aspect of life, including education. However, the true measure of technology's value is how well it is embraced, integrated into, and integrated with other systems. The study has, in fact, brought attention to the government of the Philippines' ongoing attempts to modernize the technology-assisted education system by incorporating ICT into the curricula of basic education. They further stated that the expansion of ICT infrastructure and the equal delivery of ICT education throughout all Philippine schools ought to be given top priority. The integration of technological trends into the foundational education of schools is necessary for the Filipino people to become globally competent. A nation's ability to adapt to change, foster innovation, and make a seamless transition to an upward slope of progression. (Tomaro, 2018).

Stephen (2017) explained that the emergence of contemporary ICT technologies does not automatically lead to the dissemination of innovative pedagogical techniques. While technology is frequently incorporated into current educational practices, curricula, and structures, it is not the only factor driving educational innovation. In order to support learning in a particular setting, technology needs to be thoughtfully and appropriately adapted. Teachers must take into account the following relationships: a) content and technology; b) pedagogy and technology; and c) content and pedagogy. They must understand how technology, pedagogy, and content interact.

## **Professional Competence**

According to Bilbao et al. (2019), technology offers teachers tremendous support in their role as learning facilitators. With the use of audio-visual aids, charts, and models, as well as smart classrooms and e-learning environments that engage and focus students, it turns a passive classroom into an engaging and dynamic one. Technology also helps with the professional development of teachers. Technology availability offers an alternate method of attending professional development online, meeting the demand for instructors to engage in ongoing professional development. The rapidly advancing technology will never stop.

As educators in the 21st century, teachers need to internalize this profession in line with the changing times. Teachers must put in energy and expertise to integrate ICT in teaching and learning in order to polish the talent and strengthening the potential of students to be successful in all fields of endeavor (Arthur, 2022).

Furthermore, Lai and Jin (2021) revealed that professional uniqueness shapes teachers' sense making of how to understand and behave in their teaching work, and thus may play a significant role in determining how teachers position and suitable technology in the teaching process. It is unclear, nevertheless, how certain facets of a teacher's professional identity could affect how they approach integrating technology into their lessons. Teachers' use of technology for content delivery, learning enrichment, and learning transformation was significantly influenced by their educator identity orientation toward educational goals, their didactic and pedagogical identity orientation toward professional understanding base, and their learner-centered orientation toward instruction. **ICT Integration** 

According to Shah (2022), Integration of Information, Communication, and Technology (ICT) will assist teachers to the global requirement to replace traditional teaching methods with technology-based teaching and learning tools and facilities. ICT is regarded as one of the key components in Malaysia's transformation for future development. Teachers and children benefit greatly from ICT integration. Technology-based teaching and learning is mostly dependent on teachers who are well-prepared with ICT tools and resources. Additionally, it was shown that teacher professional development training programs were crucial in improving the caliber of education that pupils received. Future research must take into account additional facets of ICT integration, particularly from a management perspective with regard to policymaking and strategic planning.

## Teachers' Attitude

Kara (2021) revealed that the quality of the teaching-learning process is improved by ICT integration, and that there is a strong link between teachers' technological competencies and their technology pedagogical and content knowledge (TPACK). While having a good attitude toward ICT is one of the variables that contribute to its integration in education, it is not sufficient on its own to integrate ICT into teaching and learning. According to Adegbenro, Gumbo and Olakanmi (2017), educators were generally in favor of utilizing computers in the classroom. Instructors exhibited a willingness to acquire further knowledge on the incorporation of computers into the educational process. However, because they lacked the necessary knowledge and abilities to integrate ICT into their educational methods, instructors had trouble implementing it in the classroom.

## Perceived Usefulness

Nuryakin, Rakotoarizaka and Musa (2023), discovered that persons who claim that applying a technology will improve the quality of their work are expressing perceived usefulness. Therefore, users are more eager to use an e-learning platform that they find more useful. According to the findings, one of the most promising educational technologies for advancement in academic settings is mobile learning. It is further noted that when students discover that online learning platforms improve their performance and achievement by enabling their complete learning productivity, they see it as helpful and user-friendly.

Salleh, Musa, Jaidin and Shahrill (2021) postulated that self-efficacy and perceived usefulness contribute significantly to pre-service teachers' use of ICTs, and thus it is also helpful to involve PSTs in professional development programs during their teaching practice. This is due to the fact that more professional development programs that incorporate technology would be beneficial in improving PSTs' understanding of and perspectives on ICTs and their application in the classroom. It is hypothesized that teachers' opinions of the utility, usability, and self-efficacy of technology have an impact on their beliefs about incorporating it into their lessons.

## **Perceived Ease of Use**

Falode (2018) perceived ease of use is a measure of how much math teachers think that integrating ICT into their lessons has made learning less stressful. It has been shown to have a beneficial impact on teachers' attitudes toward using ICT as well as their perception of its usefulness.

According to Chen and Aklikokou's (2019), there is an existing positive and significant correlation between perceived ease of use and perceived utility of E-government among users, as observed in their intents. Users' perceptions of usefulness are shaped by perceived ease of use, which they value highly. Preschool teachers will believe that the use of educational technology will not significantly impact their work if they believe that they are difficult to implement. That example, when educators see that educational technology is simple to use, preschool teachers will think it is beneficial and useful during the COVID-19 pandemic.

## **Statement of the Problem**

This study aimed to investigate the teachers' competence and their motivation on ICT Integration in Tagoloan East District, Misamis Oriental for the School Year 2022-2023.

Specifically, this study sought to answer the following questions:

1. What is the respondents' level of ICT Competence in terms of technology operations and concepts, social and ethical, pedagogical; and professional?

2. What is the respondents' extent of motivation on ICT integration in teaching considering teachers' attitude, perceived usefulness and perceived ease of use?

3. Is there a significant relationship between the respondents' level of ICT competencies and extent of motivation on ICT integration in teaching considering technology operations and concepts, social and ethical, pedagogical and professional?

## **Theoretical Framework**

The study was anchored on Dr. Ruben Puentedura's (2009) SAMR Model, a framework for categorizing four levels of classroom technology integration. The acronym "SAMR" stands for Substitution, Augmentation, Modification, and Redefinition. The SAMR approach was created to give educators a common language to use when trying to personalize instruction and help students understand difficult ideas. The SAMR Model can be especially helpful in blended learning and remote learning contexts since integrated classroom technology allows for more flexible teaching and learning for both teachers and students.

Crompton and Burke (2020) define the four SAMR tasks, beginning with Substitution, as the use of technology to fulfill a work that was previously completed without it. Thus, technology serves as a substitute. Next, they define Augmentation as the use of technology to significantly boost learning. Then, modification is defined as the application of technology to rethink an assigned task. Finally, redefinition is defined as the use of technology to produce a product that only works when combined with other technologies.

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For the dependent variables, the Theory of Reasoned Action developed by Martin Fishbein and Icek Ajzen in 1975 was adopted as propounded by Davis (1986). The prediction of an information system's acceptance is the specific focus of this theory. This model aims to forecast a tool's acceptability and pinpoint the changes that need to be made to the system before users find it acceptable. Moreover, it implies that perceived utility and perceived ease of use are the two primary determinants of information acceptability. As validated in the theory of reasoned action, the Technology Acceptance Model postulates that the use of an Information system is determined by the behavioral intention, but the behavioral intention is determined by the person's attitude towards the use of the system and also by his perception of its utility (Jordan et al. 2016).

TAM contends that users' attitudes, which are impacted by perceived utility and ease of use, have an impact on how they utilize technology. Other outside influences also have an impact on perceived utility and simplicity of usage. Numerous research have been reviewed, expanded upon, critiqued, and investigated TAM in regard to its internal and external consistency since its inception. If teachers perceive ICT tools as beneficial and easy to use, they are more likely to adopt them in their teaching practices. Technology Acceptance Model (TAM) is one of the models that have been used extensively in information management research. These theoretical perspectives can provide a framework for understanding and investigating Teachers' Level of Proficiency towards ICT integration.

The ideas outlined above offered a helpful foundation for determining Teacher's Competence and Motivation in Integrating Technology into their teaching. Schools and other institutions can also create methods to encourage and cultivate high levels of dedication among their teaching staff by gaining insight into the elements that drive and impact teachers' performance.

## Scope and Limitation of the Study

The study was conducted to investigate competence and motivation on ICT Integration among Elementary Teachers in Tagoloan East District, Division of Misamis Oriental. The main instrument used to gather the data is an adopted questionnaire. The researcher personally gathered the data by going to the different schools which are involved in the study. The gathered data were limited to the responses to the questionnaires that were retrieved.

The study dealt with the interplay of relationships between the dependent and independent variables. The independent variables include teachers' competence in using ICT in terms of Technology operations and concepts, social and ethical, pedagogical and professional. However, the dependent variables will focus on teachers' motivation on ICT Integration as categorized into attitude, perceived usefulness and perceived ease of use in the teaching and learning process.

## II. REARCH METHODOLOGY

## **Research Design**

This study used the descriptive research. As defined by Combes (2022), it aims to accurately and systematically describe a population. It answers the what, when, where and how questions, but not the why questions. It used a variety of research methods to investigate one or more variables. This type of research method was not simply amassing and tabulating facts but included proper analyses, interpretation, comparisons, and identification of trends and relationships.

In particular, a descriptive correlational research design was used in this study because the researcher wants to determine Teachers' competence in using ICT as to Technology Operations and Concepts, Social and Ethical, Pedagogical, Professional, and on teachers' motivation on integration ICT in their teaching when categorized into attitude, perceived usefulness, and perceived ease of used.

To attain the objectives set in this study, this research design was considered as most useful in determining teachers' competence and motivation on ICT integration in the teaching process in Tagoloan East District, Division of Misamis Oriental.

The instrument used to collect data is a questionnaire that provides a quantitative method of data gathering, such as the evidence, data, or information expressed in numerical terms. The advantage of using a questionnaire rather than an interview is that it can reach large numbers of people more easily. It is more convenient to gather data since the researcher's respondents are all teachers in Tagoloan East District, Division of Misamis Oriental.

## **Study Setting**

Tagoloan East District, Division of Misamis Oriental, Region 10 was the study's location. It is located in the North area of Mindanao. In Misamis Oriental province lies the beach front municipality of Tagoloan. The municipality has a land area of 117.73 square kilometers, or 45.46 square miles, or 3.76% of Misamis Oriental's total area. Tagoloan's municipal center is situated on the island of Mindanao, about 8° 32' North, 124° 45' East. At these coordinates, the elevation is calculated to be 13.7 meters (45.0 feet) above mean sea level.

The municipality is divided into ten barangays namely; Poblacion, Baluarte, Casinglot, Sta. Ana, Sta. Cruz, Mohon, Sugbungcogon, Rosario, Gracia, and Natumolan. Tagoloan East District has 6 Elementary Schools, namely: Maribojoc Integrated School, Mohon Elementary School, Natumolan Elementary School, Rosario Elementary School, Sta. Ana Elementary School and Sta Cruz Elementary School. Tagoloan East District was the chosen setting of the study since the researcher is currently assigned in the district, specifically in Mohon Elementary School hence there was an easy access during the admimistration of the instrument. Agriculture plays a major role in Tagoloan economy, especially when it comes to agri-industrialization. However, Tagoloan's industrialization and urbanization have resulted in a permanent decrease in its agricultural land areas. Over the past five years, a large agricultural region has remained virtually unproductive due to the encroachment of industries on prime tillable land. The principal agricultural goods farmed in the area include rice, bananas, papayas, coconuts, mangoes, peanuts, and corn. Poultry production increased, particularly that of chicken. The main factor contributing to this growth in chicken output was the introduction of broiler contract growing in the area. The expansion of poultry industry was facilitated by multinational corporations led by Swift, San Miguel Corporation, and Vitarich. In Tagoloan, the Barangays Baluarte, Sugbongcogon, and Casinglot Macajalar Bay are the three fishing areas.

## **Research Respondents**

The respondents of the study were the total population of the Elementary Teachers from Tagoloan East District. In this study, the respondents were the one hundred seventeen (117) teachers. These were the actual respondents who responded to accomplish and return the instruments.

Table	A
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### **Distribution of Respondents**

Name of School	Respondents		
Maribojoc Integrated School	7		
Mohon Elementary School	25		
Natumolan Elementary School	16		
Rosario Elementary School	9		
Sta.Ana Elementary School	33		
Sta. Cruz Elementary School	27		
Total	117		

## **Sampling Technique**

The total population sampling was used in this study. By conducting purposive technique, researcher's aim to obtain accurate and precise information about the entire population, enabling researchers to draw valid conclusions and make informed decisions based on comprehensive data are expected to be achieved. The total number of respondents is one hundred seventeen (117).

#### **Research Instrument**

In this study, the research instrument used was a two-part survey questionnaire. It was administered to all teachers in Tagoloan East District.

The first part was an adopted questionnaire and developed and modified by Guillo et al. (2017) on Assessment of Information Communication Technology (ICT) Competency of Teachers and Students at Batangas State University. It is categorized into four domains, namely: (a) Technology and Operations Concepts, (b) Social and Ethical Aspects, (c) Pedagogy; and (d) Professional. The respondents would rate themselves based on their level of proficiency in using ICT. The following scales were used: (a) Very well-performed, (b) well-performed, (c) fairly performed, (d) performed, and (e) less performed.

Meanwhile, the second part was also an adopted survey questionnaire taken from the study of Cagampang (2020) on Teachers' Attitude and Skills on ICT Integration In Sugbongcogon District which focuses on teachers' attitude towards ICT integration in teaching and from Mahdum et al. (2019) on Exploring Teachers Perceptions and Motivations to ICT Use in Learning Activities in Indonesia which answers the perceived usefulness and perceived ease of use of teachers in ICT integration.

Interpretation

## System of Scoring

The variables of the study were categorized as follows:

Part I. Tea	chers' Competence	
Scale	Range	Description
5	4.50-5.00	Very well-performed
4	3.50-4.49	Well-performed

3	4.30-3.00	very wen-pertormed	Expert
4	3.50-4.49	Well-performed	Advanced
3	2.50-3.49	Performed	Competent
2	1.50-2.49	Fairly Performed	Advanced Beginner
1	1.00-1.49	Less performed	Beginner

## PART II. Teachers' Motivation on ICT Integration terms of:

A. Teachers' Attitude, Teachers' Perceived Usefulness and Perceived Ease of Use							
Scale	Range	Description	Interpretation				
4	3.50 - 4.00	Strongly Agree	To a Great Extent				
3	2.50 - 3.49	Agree	To Some Extent				
2	1.50 - 2.49	Disagree	To Low Extent				
1	1.00 - 1.49	Strongly Disagree	Not at all				

#### **Data Gathering Procedure**

The permit to conduct this study was first obtained from the Graduate School office; then, the researcher gave the letter to the Superintendent of the Division of Misamis Oriental to seek approval to conduct the study. After it was approved, the researcher requested permission from the office of the Public Schools District Supervisor to conduct the survey questionnaire.

To ensure the smooth flow of the survey, the researcher personally explained to the respondents the purpose and the manner of conducting the survey. The researcher also made sure to establish rapport in order to gain the full support of the respondents. Finally, the questionnaires were collected, analyzed and interpreted.

#### **Statistical Treatment**

The study employed statistical analysis and procedures to give meaning to the data gathered. The analysis of data utilized the descriptive statistical technique to calculate the mean values, frequency, percentage and the standard deviation to describe the respondent's ICT competence and motivation on ICT integration.

Pearson r correlation was employed to determine if a significant relationship existed between independent and dependent variables. **Ethical Consideration** 

It is vital to protect respondents' privacy and anonymity since they may be more willing to engage honestly and freely if they are given the assurance that their identities and personal data will be kept private. It is necessary to handle the following ethical issues: Informed Consent: In most situations, researchers and participants have handled the procedure casually, and participants need to be

aware of the study's ramifications in order to make such informed decisions. The rights of the subjects as independent participants who are entitled to justice, respect, and benefits—as well as the freedom to discontinue the study at any moment—are upheld and promoted by informed consent.

Data De-identification: During the analysis and reporting process, students will be required to remove or replace any personally identifiable information (such names, school names, or contact information) from the data. Respondents may be assigned pseudonyms in order to safeguard their identity. Secure Data Storage: Protect the gathered information by limiting access to authorized personnel only and securely storing it using encryption when needed. This unintentional data exposure is to stop to third parties. Ethical Review: To ensure that the research design and data handling procedures follow ethical norms and guidelines, an institutional review board (IRB) or ethics committee will be engaged in order to receive ethical permission. **III. RESULTS AND DISCUSSIONS** 

#### Results

Problem 1. What is the respondents' level of ICT Competence in terms of Technology Operations and Concepts, Social and Ethical, Pedagogical, and Professional competencies?

	Table 1							
Distribution of the Respondents' Level of ICT Competence								
ICT Competencies	Mean	SD	Interpretation					
Technology Operations and Concepts	3.95	0.94	Advanced					
Social and Ethical Competence	3.79	0.91	Advanced					
Pedagogical Competence	3.59	0.93	Advanced					
Professional Competence	3.43	0.97	Advanced					
Overall	3.69	0.94	Advanced					
1 - 1 + 1 = 1 = 0 = 0 + 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0	1 50 2 40	(E. I. D. C	······································					

Legend: 4.50-5.00 (Very Well-performed – Expert Level) 1.50-2.49 (Fairly Performed – Advance Level)

**3.50-4.49** (Well-performed – Advance Level) **1.00-1.49** (Less Performed – Beginner Level)

2.50-3.49 (Performed – Competent Level)

Table I shows the summary distribution of the respondents' level of ICT Competence in terms of four variables. The **overall** mean of 3.69 (SD=0.94) with a description of **Well-performed** indicates that the respondents have obtained an **Advanced Level** of ICT competence in all the four variables. The result implies that the respondents are not only adept at using individual technologies but also possess the ability to navigate the complex interplay of technology with pedagogy, professionalism, and ethical considerations. They are capable of integrating technology clearly into various aspects of their professional practice, including pedagogy, professionalism, and ethical implications of the situation. This ability is crucial in an ever-evolving technological landscape where new tools and platforms constantly arise. As stated by Panagiotopoulos and Caloghirou (2023), this holistic competence aligns with contemporary expectations for educators and professionals who need to engage with technology in a multifunctional and interconnected manner.

Specifically, the **highest** mean of 3.95 (SD= 0.94) with a description of **Well-performed** indicates that the respondents obtained the **Advanced Level** of ICT competence in terms of **Technology Operations and Concepts**. The result implies that the respondents are not only proficient in using specific applications or devices but also have a comprehensive knowledge of the underlying technology infrastructure. It is understood that advanced ICT competence empowers both learners and educators to harness the full potential of technology for educational purposes. As observed, respondents may design learner-centered activities, facilitate interactive and collaborative learning experiences, and provide opportunities for students to develop digital literacy skills and critical thinking abilities in navigating an increasingly technology-driven world. On an institutional level, the Advanced Level of ICT competence in Technology Operations and Concepts is indicative of a technologically adept faculty or workforce. According to Alolayyan and Alyahya (2023), institutions benefit from having educators and professionals who can serve as technology champions, guiding others in harnessing the full potential of technological resources. This creates a positive learning and working environment that embraces innovation and the strategic use of technology for improved outcomes.

Meanwhile, the **lowest** mean is 3.43 (SD=0.97) with a description of **Well-performed** indicates that the respondents have also reached the **Advanced Level** of ICT competence in terms of **Professional Competence**. This implies that respondents achieved an Advanced Level of ICT competence in Professional Competence hence the respondents are adept at integrating technology seamlessly into their professional roles. This goes beyond the technical skills and extends to the effective application of technology in various professional tasks, such as communication, collaboration, research, and administrative responsibilities. The result proves that individuals are well-prepared to navigate the demands of a technologically driven professional environment.

The finding has implications for the overall efficiency and productivity of the respondents in their professional roles. Educators and professionals with Advanced ICT competence in their professional context are likely to leverage technology to streamline workflows, enhance communication, and contribute to more effective decision-making processes. This, in turn, can positively impact organizational performance and outcomes (Arnado & Aviles, 2023).

Problem 2: What is the respondents' extent of motivation on ICT integration in teaching considering Teachers' Attitude, Perceived Usefulness, and Perceived Ease of Use?

	Table 2						
Distribution of the Respondents' Extent of Motivation on ICT Integration in Teaching							
Variables Mean SD Interpretation							
Teacher's Attitude	3.67	0.51	To a Great Extent				
Perceived Usefulness	3.62	0.53	To a Great Extent				
Perceived Ease of Use	3.45	0.62	To Some Extent				
Overall	3.58	0.55	To a Great Extent				
Legend: <b>3.26-4.00</b> (Strongly Agree – To a Great Extent)	<b>1.76-2.50</b> (Disagree – To little Extent)						
<b>2.51-3.25</b> (Agree – To Some Extent)	<b>1.00-1.75</b> (Strongly Disagree – Not at all)						

Table 2 shows the summary distribution of the respondents' extent of motivation on ICT Integration in Teaching considering the three variables. The **overall** mean of 3.58 (SD=0.55) indicates that the respondents have a **Great Extent** of motivation on ICT integration in teaching considering Teacher's Attitude, Perceived Usefulness, and Perceived Ease of Use. The Great Extent of motivation across these three variables underscores a holistic and positive approach among educators towards ICT integration. The strong agreement with Teacher's Attitude, Perceived Usefulness, and Perceived Ease of Use collectively suggests a unified mind-set where respondents are not only motivated but also exhibit positive attitudes, recognize the practical benefits, and find technology easy to use. This alignment is crucial for the successful implementation and sustainability of technology-enhanced teaching practices. The result further implies that educators perceive a strong connection between their attitudes, the perceived usefulness of ICT, and the ease of incorporating technology contributes to a more seamless and enthusiastic integration of ICT tools in instructional practices. Institutions can leverage this alignment to design targeted initiatives that enhance educators' overall readiness and confidence in using technology.

Specifically, the **highest** mean is 3.67 (SD=0.51) with a description of **Strongly Agree** which indicates that the respondents have a **Great Extent** of motivation considering **Teacher's Attitude**. The result implies a profound shift in educators' perspectives, indicating not just a mere acknowledgment, but a wholehearted embrace of technology as a crucial asset in education. This evolving mindset emphasizes educators' keen awareness of the transformative potential inherent in technology, driving them to integrate it seamlessly into their teaching methodologies. Moreover, this positive adoption reflects a deep-seated commitment to technological advancements as catalysts for enriching the learning experience and maximizing student engagement.

As educators increasingly harness the power of technology, they pave the way for innovative pedagogical approaches that transcend traditional boundaries, ultimately fostering a dynamic and adaptive educational landscape poised for continual evolution. This positive attitude can lead to a proactive engagement with professional development opportunities, a readiness to experiment with new teaching strategies, and a commitment to continuously improving their technological skills (Rahimi, 2022).

Meanwhile, the **lowest** mean is 3.45 (SD=0.62) with a description of **Agree** which indicates that the respondents have **Some Extent** of motivation on integrating ICT in teaching considering **Perceived Ease of Use**. The result implies that the respondents don't think integrating technology into their lessons is unduly complicated or challenging. This favorable opinion is probably going to encourage students to use ICT tools with greater assurance and enthusiasm, which will add to the dynamic and changing learning environment. Strong proponents of perceived simplicity of use among educators are more inclined to adopt a range of technological tools, providing pupils with a more engaging and richer learning environment.

Moreover, the findings have implications for professional development initiatives. Recognizing educators' positive perceptions of the ease of use, institutions can tailor training programs to build on this confidence. Professional development efforts can focus on advanced features of commonly used tools, introduce new and innovative applications, and provide strategies for overcoming potential challenges. This targeted support can further enhance educators' capabilities in utilizing technology effectively in their teaching (Khaizer, 2023).

Problem 3. Is there a significant	relationship between th	<mark>e res</mark> pondents' level of ICT	competencies and extent of motivation
on ICT integration in teaching c	onsidering Teacher's A <mark>t</mark>	titude, Perceived Usefulnes	s, and Perceived Ease of Use?

Table 3

#### Result of the Test of Significant Relationship Between the Respondents' Level of Competencies and their Extent of Motivation on ICT Integration in Teaching

ICT Competencies	Teache	er's Attitu	's Attitude Perceived Usefulness Perceived Ease of U				ived of Use	ed Use		
	<u> </u>	p-value	Interpretation	r	p-value	Interpretation	r.	p-value	Interpretation	Overall
Technology Operations and Concepts	0.266	0.004	S	0.299	0.001	S	0.181	0.050	NS	S
Social and Ethical	0.357	0.000	S	0.287	0.002	S	0.242	0.008	S	S
Pedagogical	0.315	0.001	S	0.169	0.067	NS	0.264	0.004	S	S
Professional	0.291	0.001	S	0.318	0.000	S	0.309	0.001	S	S
Overall	0.307	0.002	S	0.268	0.018	S	0.249	0.016	S	S

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Table 3 shows the summary result of the test of significant relationship between the respondents' level of ICT competencies and their extent of motivation on ICT integration in teaching. The overall result indicates that **there is a significant relationship** between the respondents' level of ICT competence and their extent of motivation on ICT integration into their teaching. Specifically, there is a **significant relationship** on **Technology Operations and Concepts** and their extent of motivation in ICT integration into their teaching. The overall relationship with *Perceived Ease of Use*.

On the other hand, Social and Ethical Competence as well as the Professional Competence have both a significant relationship with all the variables on their extent of motivation such as the Teacher's Attitude, Perceived Usefulness, and Perceived Ease of Use. This suggests that respondents proficient in fundamental technology operations are likely to embrace technology as a valuable tool, recognizing its benefits, although their perceptions of ease might not be directly influenced by this competence. On the other hand, Social and Ethical Competence and Professional Competence consistently show significant relationships with Teacher's Attitude, Perceived Usefulness, and Perceived Ease of Use. Educators who excel in social and ethical considerations and perceive themselves as competent professionals in ICT tend to exhibit positive attitudes, find technology useful, and perceive it as easy to use. Meanwhile, Pedagogical Competence demonstrates a mixed pattern, being significantly related to Teacher's Attitude and Perceived Ease of Use but not to Perceived Usefulness. This further implies that respondents with strong pedagogical skills are inclined to have positive attitudes and find technology easy to use but may not necessarily associate it with perceived usefulness. According to Hämäläinen and Taajamo (2021), in crafting professional development programs, institutions should take a nuanced and tailored approach, recognizing the distinct influences of different competence areas on educators' attitudes and perceptions, thereby fostering a comprehensive and positive environment for successful ICT integration in education.

## Discussion

The study aimed to explore the competence level and motivation of teachers regarding ICT integration within Tagoloan East District, Misamis Oriental, during the academic year 2022-2023. Specifically, the research sought to assess teachers' competence in various domains of ICT, including Technology Operations and Concepts, Social and Ethical dimensions, as well as Pedagogical and Professional competencies. It also aimed to evaluate teachers' motivation towards ICT integration, considering factors such as attitude, Perceived Usefulness, and Perceived Ease of Use. Additionally, the research aimed to investigate the potential correlations between teachers' levels of ICT competence and their motivation to integrate ICT into the teaching process.

The result of the study revealed that the respondents exhibit an advanced level of ICT competence across all variables, as demonstrated by the overall mean of 3.69 (SD=0.94). Notably, Technology Operations and Concepts garnered the highest mean of 3.95 (SD=0.94), indicating a strong understanding and proficiency in navigating technological tools. Conversely, Professional Competence obtained the lowest mean of 3.43 (SD: 0.97), suggesting areas for potential improvement despite still being categorized as well-performed, interpreting an advanced level of competence.

Furthermore, the respondents demonstrate a Great extent of motivation towards ICT integration in teaching, as evidenced in the overall mean of 3.58 (SD=0.55). Specifically, Teacher's Attitude received the highest mean of 3.67 (SD: 0.51), highlighting a strong agreement and enthusiasm towards incorporating ICT into pedagogical practices. Conversely, Perceived Ease of Use garnered the lowest mean of 3.45 (SD: 0.62). Interestingly, while significant relationships exist between most independent and dependent variables, Technology Operations and Concepts show no significant relationship with Perceived Ease of Use. Likewise is noted between Pedagogical Competence and Perceived Usefulness.

The result implies that Tagoloan East District teachers perceived some challenges in implementing ICT, despite their high motivation. This indicates that while teachers recognize the usefulness of technology in teaching, they may encounter difficulties or obstacles in its practical application. Tagoloan East District teachers must improve across the board and join hands on ICT workshop and seminars to enhance their ICT skills. Teachers indicate a strong willingness to integrate ICT into their teaching practices. This positive attitude is encouraging and suggests that with the right support and resources, teachers are likely to overcome difficulties and embrace technology more effectively. The absence of a significant relationship between Technology operations and Concepts and Perceived Ease of Use is also evident. It suggests that teachers' familiarity with technology and understanding of its basic operations may not necessarily correlate with their perception of its ease of use. Likewise, with Pedagogical Competence and Perceived Usefulness, this implies that being highly skilled in teaching doesn't automatically lead to the perception that a particular tool or technology is useful for enhancing teaching effectiveness.

Overall, these results highlight the complexity of integrating ICT into teaching practices and the need for comprehensive support that address both technical challenges and users' perceptions and attitudes. By addressing these factors, educational institutions can better equip teachers to influence technology effectively in the classroom, ultimately enhancing the quality of teaching and learning experiences.

## **Conclusion:**

The respondents need to increase their competencies in all of the ICT domains since they are found to be only in the Advanced level. Understandably, they are not very highly competent since they are more focused on teaching of their pupils rather than developing more complex skills in technology. Although the respondents are not all very highly competent in ICT, they have a very high extent of motivations on integrating ICT in teaching. Hence, the higher is the person's ICT competencies, the higher is his/her motivation to utilize technology in relevant tasks. This explains the fact that teachers who are able to perform their teaching job with the use of technology become more motivated to integrate technology. Moreover, Most of the ICT competencies have a bearing to motivation on ICT integration in teaching.

## Recommendations

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

- 1. Teachers should participate in workshop-style training sessions on how to use technology to enhance their ICT professional competence. They should continue improving their ability and enriching their knowledge related to the use of ICT through training, both held by schools or other institutions so that teachers can vary their teaching methods or teaching strategies.
- 2. Teachers should embrace a proactive approach to continuous learning, particularly in using technology. By integrating ICT to their teaching, teachers become more comfortable with the technology and develop a level of expertise that eventually improves

ease of use. This continuous involvement acts as a calculated investment, putting teachers in a position to successfully and confidently negotiate the changing terrain of education.

3. To further improve the ICT competence among teachers in Tagoloan East District, district-wide ICT training, spearheaded by school administrators, should be considered in the areas of competency that yielded low outcomes. Through this, teachers will be equipped with the necessary ICT skills, motivated to use technology with ease and will appreciate the usefulness of ICT into the teaching and learning process.

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