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THE MEDIATING EFFECT OF THE USE OF ICT ON THE RELATIONSHIP BETWEEN TLE TEACHERS' ATTITUDES AND ICT COMPETENCY LEVEL

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Abstract:
This study aimed to establish the role of Information and Communication Technology (ICT) usage in influencing the attitudes and competency levels of TLE Teachers in the field of Information and Communication Technology (ICT). This study used non-experimental quantitative research and descriptive correlation to collect data on the 340 teacher respondents teaching TLE in the Division of Davao de Oro and identify the relationship between various variables. The study's objectives were evaluated using the mean, which revealed a significantly very high level of TLE teachers' attitudes, a high level of ICT competency, and a high level of ICT utilization. The utilization of the Pearson correlation coefficient showed a statistically significant association between the attitudes of TLE teachers and their use of ICT. There was a substantial relationship between the Use of ICT and ICT competency levels. Also, a notable correlation existed between the attitudes of TLE teachers and their degrees of ICT competency. Moreover, employing path analysis, the study revealed a partial mediation in the effect of ICT on the correlation between TLE teachers' attitudes and their level of ICT competency. Hence, TLE Teachers in Davao de Oro have shown a commendable level of attitude, utilization, and proficiency in Information and Communication Technology (ICT), which aligns with the effective integration of ICT in the classroom. The results demonstrated how important it is for school heads and master teachers to encourage a positive attitude and offer ongoing professional development and support to help teachers use ICT more effectively and improve students' learning.

Keywords: education, use of ICT, TLE teachers' attitudes, ICT Competency level, mediating effect, Philippines

SDG Indicator: #4 (Quality Education), #9 (Industry, Innovation, and Infrastructure)

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1. Introduction

Improving competency in Information and Communication Technology (ICT), particularly among Technology and Livelihood Education (TLE) Teachers, is essential for addressing the educational demands of the twenty-first century. Developing nations prioritize the necessity of offering training and assistance in Information and Communication Technology (ICT) (Bamigboye et al., 2013; Yusuf & Balogun, 2011). With the COVID-19 pandemic, online education using Information and Communication Technology (ICT) tools became predominant, increasing free webinars in Davao de Oro to aid teacher skill development. However, some TLE teachers still need assistance effectively connecting Information and Communication Technology (ICT) into their instructional approaches. The study by Reang and Mohalik (2023) found that 47% of secondary school instructors needed more Information and Communication Technology (ICT) expertise. Inadequate Information and Communication Technology (ICT) competence can have an adverse impact on students (Ghavifekr, 2016). Teachers' positive attitudes toward technology are pivotal for fostering comfort in Information and Communication Technology (ICT) device utilization. Consequently, this research analyzes how Information and Communication Technology (ICT) use mediates the relationship between TLE teachers' attitudes and competency levels.

Incorporating Information and Communication Technology (ICT) into teachers' professional development resources is essential. In Region 7, more integration of technology in classroom instruction by teacher educators is needed (Marcial and Rama, 2015). To effectively address this issue, teacher educators must improve their competence in Information and Communication Technology (ICT), especially in technology concepts and operations. Teachers' attitudes toward adopting new technology pose a significant barrier (Briones, 2018). Challenges like lack of self-motivation, Information and Communication Technology (ICT) knowledge, skills, confidence, and age hinder technology adoption in teaching. Practical training in school settings has proven effective in enhancing teachers' Information and Communication Technology (ICT) competency (Li et al., 2019). Parents observed increased interest and involvement in lessons when taught using digital materials. Well-equipped instructors with Information and Communication Technology (ICT) tools remain vital for successful technology-based instruction (Buladaco, 2020). Professional development programs at ACES Polytechnic College in Davao del Norte significantly improved SHS teachers' abilities, emphasizing how information and communication technology (ICT) increases motivation, engagement, and skills for ongoing growth (Chalopatham, 2015).

The skill levels of trainee teachers in Information and Communication Technology (ICT) competencies differ across universities and fields, as indicated by Bakar (2007). Potential teachers' digital capabilities significantly impact the use of Information and Communication Technology (ICT) for educational objectives. This highlights the importance of including digital skills in teacher training programs (Fernández-de-la-Iglesia, 2020). The efficacy of Information and Communication Technology (ICT) as a

valuable teaching tool has been emphasized by Las Johansen et al. in 2017. Moreover, children learn more efficiently through Information and Communication Technology (ICT), finding lessons more engaging and entertaining. Studies have consistently shown that Information and Communication Technology (ICT) aids teachers in more practical education, improving work management and storage and ultimately enhancing student learning (Nwosu Augustine et al., 2018). Teachers' attitudes are closely tied to their competence, and while they may have a positive attitude, proficiency with assistive technology is essential (Onivehu et al., 2017). This positive attitude strongly predicts Information and Communication Technology (ICT) usage, emphasizing the relevance of equipping educators with adequate Information and Communication Technology (ICT) skills to boost confidence in integrating technology within the school curriculum (Yusri and Goodwin, 2013).

The experience, skills, and anxiety levels of teachers in Information and Communication Technology (ICT) have a notable impact on their attitudes about using ICT in schools, which can affect their competence level. The utilization of Information and Communication Technology (ICT) in classrooms is advantageous for enhancing teachers' ICT skills (Vitanova et al., 2015). This study utilizes the Technology Acceptance Model (TAM) developed by Fred Davis (1986) to investigate the factors influencing workers' acceptance and utilization of technology. Furthermore, it adheres to the Technological Pedagogical Content Knowledge (TPACK) framework developed by Misha and Koehler (2006), which outlines the deliberate utilization of Information and Communication Technology (ICT) depending on individuals' proficiency. In addition, the Unified Theory of Acceptance and Use of Technology (UTAUT), developed by Venkatesh et al. (2003), highlights the connection between attitudes towards Information and Communication Technology (ICT) usage and ICT skills. Hence, the disposition of instructors towards adopting Information and Communication Technology (ICT) might impact their proficiency levels.

The significance of this study lies in the rapid evolution of Information and Communication Technology (ICT) in education, which has profound effects on both social and global contexts. Information and Communication Technology (ICT) serves diverse needs in the current educational landscape, particularly in the "new normal" setting. The study conducted by Trujillo-Torres et al. (2020) emphasized that young mathematics teachers who had prior teaching experience displayed favorable beliefs toward technology, linking it to easier work processes, improved teaching functions, and enhanced student performance. Similarly, Badia and Iglesias (2019) found that high school science educators in Utah emphasized the importance of technology in science instruction despite having limited competence in its use. However, within Davao de Oro, little is known about how Information and Communication Technology (ICT) influences Technology and Livelihood Education (TLE) teachers' attitudes and competencies, creating a geographical and population gap in this study area. The Division of Davao de Oro has introduced extensive upskilling training on Information and Communication Technology (ICT) tools, necessitating exploring how Information and Communication

Technology (ICT) mediates TLE teachers' attitudes and competency levels. Surprisingly, despite a comprehensive literature review, no prior research examines explicitly how Information and Communication Technology (ICT) impacts public secondary TLE teachers' attitudes and competencies within the Davao de Oro Division.

2. Literature Review

2.1 Teachers' Attitude and ICT Competency Level

The research conducted by Tondeur et al. (2018) found that pre-service teachers' attitudes towards Information and Communication Technology (ICT) in education and their perception of its ease of use positively influenced their proficiency in using ICT for educational purposes. These findings help prepare pre-service teachers for 21st-century learning contexts, including new technology. Teachers' motivation to utilize Information and Communication Technology (ICT) within the educational setting might be boosted by their digital self-efficacy and perceived school support. New graduates with some teaching experience exhibited good attitudes toward technology, as evidenced by high motivation scores in Information and Communication Technology (ICT) (Trujillo-Torres et al., 2020). The significance of foreign language instructors' knowledge, abilities, and perceptions of the utilization of Information and Communication Technology (ICT) in instruction, as well as optimism regarding the positive effects of Information and Communication Technology (ICT) on pupils' proficiencies (Malinina, 2015).

According to the study by Kumari (2014), a significant proportion of teachers now employed in the education sector utilize Information and Communication Technology (ICT) for various reasons. Furthermore, these teachers exhibit a favorable disposition toward the perceived utility of Information and Communication Technology (ICT) and express confidence in their proficiency in utilizing such technologies. In the study conducted by Rodriguez (2021), it was observed that high school administrators and instructors in Antique, Philippines, had a high level of self-perceived proficiency in several aspects of computer usage, including general computer abilities, Microsoft Office proficiency, and the ability to create an Information and Communication Technology (ICT) learning environment. However, it is essential to note that there were certain discrepancies in the ratings provided by the participants. Educators demonstrated a predominantly positive attitude toward adopting Information and Communication Technology (ICT) in educational environments (Cure, 2008). However, the research also noted areas for improvement in their practical use of Information and Communication Technology (ICT). In general, the studies suggest that some educators exhibit a commendable level of proficiency and favorable dispositions toward Information and Communication Technology (ICT). However, areas still necessitate enhancement, implying the potential requirement for additional training.

Utilizing Information and Communication Technologies (ICTs) for educational purposes is becoming increasingly popular worldwide. Information and Communication Technology (ICT) is the fundamental enabling instrument in teaching and learning.

Teachers exhibited a cheerful disposition towards the usage of technology. They were eager to adopt Information and Communication Technology (ICT) for education and acquiring knowledge but needed more ICT skills (Chisango et al., 2020). As a result, Information and Communication Technology (ICT) is a significant vehicle in education, and it is also recommended that teachers and students have training in the technology field. Teachers expressed a positive stance toward utilizing Information and Communication Technology (ICT) in the instruction and acquiring the English language (Aminullah et al., 2019). However, several still faced numerous issues, including needing more Information and Communication Technology (ICT) equipment, a lack of skills, and insufficient institutional regulation. As a result, each school's facilities, infrastructure, and teachers' competence and knowledge of Information and Communication Technology (ICT) must be improved. Also, instructors are concerned that using technology for communication and information in the classroom may limit their ability to innovate. Teachers of Early Childhood Education have been asked to assess their thoughts and feelings toward Information and Communication Technology (ICT) and their use. It became clear that they are not digitally proficient enough to be called "digital natives," nor are they skilled enough to use ICT in school or their future careers (Casillas-Martin et al., 2020).

The efficacy of integrating Information and Communication Technologies (ICTs) in education relies on educators' competence and attitudes towards technology. Nevertheless, persistent obstacles such as insufficient equipment, skill limitations, and restricted institutional regulations continue. Enhancing teachers' digital self-efficacy and cultivating robust school support are imperative factors in facilitating the efficient use of computer and internet technology in educational settings. Ongoing professional development is crucial in addressing educators' deficiencies in both their technical skills and attitudes toward Information and Communication Technology (ICT), thereby improving the overall quality of teaching and learning encounters.

2.2 Teachers' Attitude and the Use of ICT

The term "attitude" refers to teachers' positive or negative attitudes toward Information and Communication Technology (ICT) integration in school as the new paradigm shifts. It is a mental and neutral state of readiness when responding to Information and Communication Technology (ICT). Attitude influences accepting and utilizing IS/IT advancements (Dwivedi et al., 2019). In the study of Semerci and Aydin (2018), teachers have a generally positive attitude toward using technology in education. However, the findings revealed that they still have some apprehension about ICT, although at a modest level.

Furthermore, the findings revealed that teachers believe using Information and Communication Technology (ICT) in school has various advantages. The adoption of Information and Communication Technology (ICT) by instructors in school was extremely high. Teachers, overall, have a favorable attitude toward using Information and Communication Technology (ICT) since they believe it improves students' learning

(Coban & Atasoy, 2019). It also makes it easier for them to design their teaching and learning opportunities. Inform policymakers and stakeholders interested in promoting integrating information and communications technologies into physical education (Tou et al., 2020).

In Spiteri and Chang Rundgren's (2020) study, elementary teachers initially needed more confidence while using technology in the classroom. However, their self-efficacy improved as they observed and collaborated with their colleagues. According to DeCoito and Richardson (2018), teachers were found to be confident in their knowledge of subjects, pedagogy, and technology. However, most saw technology as a tool rather than an integral component of the learning process. This study expands our understanding of professional development activities and emphasizes the importance of addressing the interdependence of technology, pedagogy, and topical content matter rather than technical knowledge. Parents and instructors have more favorable attitudes toward using digital media at campuses where the management team encourages using e-mails or digital sites for family school contact (Bordalba & Bochaca, 2019). These findings have a fundamental implication: Management teams should be the first to introduce digital media to engage with families.

According to Semerci and Aydin (2018), instructors like using Information and Communication Technology (ICT) in the classroom. This outcome coincided with the findings that instructors had good attitudes regarding Information and Communication Technology (ICT). Nonetheless, the findings revealed that instructors still have a low level of apprehension about Information and Communication Technology (ICT) in the classroom. Educators with higher degrees of confidence in their pupils' readiness to use technology used constructivist classroom devices and substantially used ICT more (Haixia et al., 2018). The significance of Information and Communication Technology (ICT) on the quality and quantity of the teaching-learning process is observable. Information and Communication Technology (ICT) can enhance instruction and knowledge by providing dynamic, interactive, and exciting information and an opportunity for personalized education (Alkamel & Chouthaiwale, 2018).

The study by Ahmed et al. (2020) analyzed educators' views on using Information and Communication Technology (ICT) tools in their instruction of English. The results suggested that tertiary EFL teachers at the concerned Yemeni universities held positive attitudes towards using Information and Communication Technology (ICT). No significant differences can be attributed to academic level, computer competence, or education. Instructors' attitudes toward Information and Communication Technology (ICT) can influence acceptance and assimilation. If teachers have negative views toward technology, more than supplying them with excellent Information and Communication Technology (ICT) facilities may be needed to persuade them to use it in their classrooms (Lawrence & Tar, 2018). Teachers' attitudes toward technology and technology education are regarded as a component of their professional knowledge, influencing students' perspectives. Despite this, each of the ten teachers had a positive attitude toward technology (Nordlof et al., 2019).

Julian's (2022) grounded-in data assessment of a survey conducted among 56 teachers from two prestigious Russian universities reveals that 42% of the teachers fully endorse the insertion of Information and Communication Technology (ICT) into the curriculum and favor ICT. On the other hand, 34% of the teachers oppose technological advances and have negative attitudes towards ICT. Additionally, some teachers exhibit generally positive attitudes towards ICT but experience fear when using it. In the study of Nikolopoulou et al. (2019), teachers' opinions impact their classroom methods. Information and Communication Technology (ICT) is valuable for supporting young children's English as a foreign language (EFL) reading skills.

Student teachers reported positive attitudes, suggesting their desire to use Information and Communication Technology (ICT) to teach young children to read in English. The most commonly cited abilities and techniques were using computers in their classes to expand children's vocabulary and motivate them to read and enjoy reading (a high proportion of agreement, over 70%). Instructors had favorable opinions about technology (Khamprem & Boonmoh, 2019). They are expected to master new technological abilities, stay up-to-date on current events, and put those skills to use in their classrooms. However, some teachers did not employ technology to aid classroom learning due to inadequate Internet connections, a lack of supporting facilities, a heavy teaching workload, and other challenges.

The acceptability and application of Information and Communication Technologies (ICT) within schools are greatly influenced by attitude. Educators typically favor applying Information and Communication Technology (ICT), citing benefits such as improved pupil learning and instructional design. However, attitudes can vary depending on instructional experience and subject matter. Some instructors still harbor apprehensions and lack confidence in using technology, indicating the need for ongoing training and support. The research reveals various attitudes among instructors, with some expressing support and opposition while others displaying optimistic dispositions.

2.3 The Use of ICT and ICT Competency Level

Competency level pertains to teachers' proficiency in employing Information and Communication Technology (ICT). Teachers' successful use of Information and Communication Technology (ICT) depends on their attitudes, abilities, and expertise. Teachers' Information and Communication Technology (ICT) Competency is essential for incorporating Information and Communication Technology (ICT) in teaching and learning. Today, one of the main goals of further education is to train qualified teachers. Competence enables a specialist to efficiently handle the numerous responsibilities associated with professional activities (Dzhurylo & Shparyk, 2019).

According to Perienen (2020), those who had been in the teaching profession for a longer time used less technology in their teaching because they needed to perceive it to be more complex to use than their younger colleagues. In addition, according to Li et al. (2018), the proficiency of educators impacts their perceptions of harnessing Information and Communication Technology (ICT) in the instructional process. Based on previous

studies, confidence in technological advances is a significant factor in their competence. It is advised that primary teachers have the training to improve their competency. The study reveals that teachers' competency and advantages in communication technologies would improve the learner-centered approach.

According to Kaur and Singh (2018), teachers need more teacher competency in including Information and Communication Technology (ICT) in educational settings. Support systems and practicing Communication Technologies are essential among educators once they integrate Information and Communication Technology (ICT) in education (Hatlevik & Hatlevik, 2018). Excellence in teaching will be strengthened by using technology in the teaching process. Teachers must receive training to effectively work with Information and Communication Technology (ICT) within the educational setting. (Khan, 2020). Incorporating Communication Technology is crucial for teachers (Suárez-Rodríguez et al., 2018). Their study reveals that teachers are more technologically competent than pedagogically competent. Teachers use technology more for personal purposes than for teaching purposes. Hence, teachers willingly manipulate Information and Communication Technology (ICT) to plan their daily schedules rather than incorporate it into the school curriculum.

Mastering basic applications, government policies on the practice of Information and Communication Technology (ICT) in schools, principles and design of ICT-based teaching materials development, and procedures for operating Information and Communication Technology (ICT) hardware and software as media in class are all examples of teacher competency in the ICT sector (Batubara, 2017; Yusrizal et al., 2019). Efforts should be made to enhance classroom competence in digital skills, provide schools with adequate computer hardware and software, and perform further research on the psychological determinants that impact teachers' inclination to utilize technology for online instruction amid the global epidemic and in the future (Klapproth et al., 2020). Information and Communication Technology (ICT) should be studied not only to improve technical proficiency but also to be used in such a way that they foster the growth of individual cultures and behaviors based on ethical principles like respectful coexistence and they provide the required security in usage (Novella-García & Cloquell-Lozano, 2021).

According to Schroeder et al. (2019), teachers admitted they mainly adopt Pinterest to locate entertaining engagements rather than design complete topics, adapting what they discover to match ideals and their pupil's needs and recognize quality standards. Pinterest increases the knowledge available to students and substantially impacts their system. Knowledge, instruction, and lesson plan stimulus can be found in various places, including the "second faculty lounge" that instructors can access through social media. According to the study by Faulkner and Bishop (2018), if schools wish to stay competitive in today's economy, faculty and institutions must adapt to online instruction. The course fostered dialogue between the student and the lecturer and between the student and the other students. Technology Competency Framework for Teachers, issued by UNESCO in 2018, emphasizes the importance of technical training for teachers to improve their

professional development. Information and Communication Technology (ICT) training for teachers includes professionalizing their appearance and combining desired career skills and abilities to improve their professionalism at work (Michos & Hernández-Leo, 2020).

Information and Communication Technology (ICT) has transformed how things were done in education in the past, whether teaching, learning, or research (Ikwuka et al., 2021). Its role in education is immeasurable. Information and communication technologies can be used as teachers' training programs to improve their teaching quality and effectively teach (Ratheeswari, 2018). In the study of Li et al. (2018), Information and Communication Technology (ICT) is utilized by educators in their work if they see its significance in integrating it into educational activities. In Mongolia, as an element of their recent educational reforms, the implementation of technology (ICT) in primary education has enhanced educational standards. Both teachers and administrators use technology in their daily activities. Teachers need to gain more knowledge of Microsoft software (Saripudin et al., 2020). Thus, teachers are encouraged to receive regular Information and Communication Technology (ICT) training through school supervision.

According to Hafifah and Sulistyo (2020), teachers routinely use technology in their classrooms despite challenges with internet access and a lack of digital skills training. The more technological tools teachers use, the more literate they will become. More regular training and better institutional and government policy support for technology facilities would be beneficial in encouraging increased technology integration in education. The study of Buabeng-Andoh (2012) revealed that the use of digital devices still needed to be expanded to fundamental and traditional tasks such as information-gathering class presentations. Internal and external influences influence teachers' Information and Communication Technology (ICT) use. In addition, although mathematics teachers and students lacked experience with ICT technologies, Mathematics teachers and students used Information and Communication Technology (ICT) instruments to teach and study mathematics, respectively (Ameen et al., 2019). Teachers who lack technological experience can use technology daily and for required record-keeping (Nath, 2019).

For teaching and learning to work well, teachers must know how to use technology devices. Teachers often know more about technology than they do about teaching and often use technology for their own reasons. To improve their Information and Communication Technology (ICT) skills, primary school teachers need organized training, systems of support, and lots of chances to practice. Traditional ways of teaching have been changed by using technology in school, as seen in Mongolia. Regular training and more substantial policy backing must be provided for technology to be widely adopted.

3. Material and Methods

The research design used was non-experimental quantitative research. According to Frey (2018), non-experimental methodologies examine social phenomena without exerting direct influence on the conditions of the subjects. The objective is to determine the overall characteristics of the variables distribution (descriptive studies) or examine the relationship between causes and results (analytical studies) (Indu & Vidhukumar, 2019). Also, a descriptive-correlational design was applied. This quantitative research approach seeks to explain the links between two or more variables.

Mediation in this research pertains to examining the covariance relationships among three variables: an independent variable (teachers' attitudes), a dependent variable (teachers' ICT competency levels), and a mediating variable (use of Information and Communication Technology). The study seeks to determine if a significant portion of the variance between the independent and dependent variables can be attributed to the mediating variable, indicating an indirect influence of ICT on instructors' competencies through the use of ICT. This foundational research, focusing on a limited number of scenarios, aims to uncover new insights into the intricate correlation between teachers' competence levels, attitudes towards ICT, and their utilization of ICT in education.

Respondents to the research were secondary school TLE public school educators in the municipalities of Nabunturan, Mawab, Laak, Monkayo, New Bataan, Mabini, Maco, Compostela, Maragusan, Pantukan, and Montevista under the Division of Davao de Oro. Davao de Oro, previously called Compostela Valley, is situated in the central-eastern portion of the Davao Region. It is delimited to the south and east by Agusan del Sur, to the southwest by Davao Gulf, and to the west by Davao del Norte. Eleven municipalities and 237 barangays comprise this region. With a confidence level of 95%, the study respondents were 340 TLE Teachers who were chosen randomly from the 11 municipalities utilizing stratified sampling out of a total population of 2205 TLE Teachers in the said province, representing the population as a whole. The sample size per school was determined using Slovin's formula to ensure a reasonable level of result accuracy.

This study focuses on secondary Technology and Livelihood Education (TLE) teachers in public schools within the Division of Davao de Oro who have integrated ICT into their teaching for a minimum of one year. Exclusions from the study encompass non-teaching staff, students, parents, school administrators, private school instructors, and TLE instructors involved in direct ICT instruction. Additionally, public teachers not teaching TLE are excluded. Ethical considerations highlight the participants' option to withdraw if the researcher engages in unethical behavior or if respondents experience distress during the study.

The researcher used adapted questionnaires to collect the data. The teacher attitudes questionnaire was adapted from Agboola (2016) with the following indicators: attitude toward using Information and Communication Technology (ICT) as an educational tool and teachers' beliefs. The instrument utilized to assess the Information

and Communication Technology (ICT) proficiency of secondary TLE instructors was derived from the National ICT Competency Standard (NICS), which was obtained from (Jandi, 2022). The following are the indicators: Technological operations and concepts, social and ethical, pedagogical and professional. The instrument on the use of Information and Communication Technology (ICT) by teachers was adapted from Buabeng-Andoh (2012).

It was created through Google Forms and distributed via online channels. The five parts of the questionnaire are general instructions, teachers' personal information, questions on teachers' attitudes, questions on teachers' competency level, and the last one, a questionnaire on the use of Information and Communication Technology (ICT). In order to solicit feedback and ideas, questions were submitted to the research adviser. Four internal validators and one external expert validated it for its internal consistency upon approval. The average validation rating was 4.60, with a descriptive rating of very good. It was pilot-tested on 34 respondents for reliability testing via Cronbach's Alpha. Cronbach α test revealed (α = 0.989) reliability for the Teacher's Attitude, (α = 0.996) reliability for ICT Competency Level, and (α = 0.957) reliability for the Use of Information and Communication Technology (ICT).

The following were the steps in gathering data for the study: The researcher emailed a letter of request to the Schools Division Superintendent (SDS) requesting permission to conduct the research of the Division of Davao de Oro to all public secondary schools within the municipalities of Nabunturan, Mawab, Laak, Monkayo, New Bataan, Mabini, Maco, Compostela, Maragusan, Pantukan, and Montevista. Following confirmation of the permit for conducting research, the researcher accompanied her letter requesting permission to carry out the analysis from all TLE public secondary school instructors using their district supervisor and principal with an endorsement letter from the Schools Division Superintendent.

Data was collected after obtaining consent from the division superintendent and principals of the educational institution. The administrators of each school designated a focal person that the researcher contacted to distribute Google Form Links. Due to Facebook Messenger's popularity as the easiest way to forward links, this was the primary method of communication with the focal person. Then, through Facebook messenger, the respective focal persons forwarded the Google Form links to the teachers involved in the study. They were instructed that the Google form link could only be answered in one month, from April 2023 to May 2023, and be closed after that. Finally, after the Google Form was accomplished and closed, data were gathered, encoded, tallied, tabulated, and classified for in-depth analysis. The study's objectives evaluated results.

4. Results and Discussion

This part presents the outcomes of the data sets that correspond with the research objectives of this current study. First, the level of teachers' attitudes in terms of using

Information and Communication Technology (ICT) as an educational tool and teachers beliefs; second, assess the level of competency among TLE Teachers in Davao de Oro; third, determine the level of Use of Information and Communication Technology (ICT); fourth, establish the significant relationship between teachers' attitude and competency level, teachers' attitude and use of Information and Communication Technology (ICT), use of ICT and competency level; lastly, determine the mediating effect of the use of ICT on the relationship between TLE Teachers' attitude and their competency level.

The observed standard deviation values in Tables 1, 2, and 3 exhibited a range of values from 0.760 to 0.895. These values are less than 1.0, the conventional threshold for the standard deviation of a 5-point Likert scale. The scores being near the mean suggests that the responses in the completed questionnaires exhibited consistency (Baron & Kenny, 1986).

The data about the attitudes of educators is displayed in Table 1. The data in the table demonstrates an average score of 4.30, categorized as extremely high and consistently measured. The table also includes a standard deviation of 0.760. The exceptionally high level resulted from the respondents' exceptionally high ratings for each indicator.

Table 1: Level of TLE Teachers' Attitude

Indicators	**SD**	**Mean**	**Descriptive Level**
Attitude towards using ICT as an educational tool	0.775	4.37	Very High
Teachers' beliefs	0.813	4.24	Very High
Overall	**0.760**	**4.30**	**Very High**

This suggests that the attitude of teachers towards utilizing ICT as an educational tool is consistently reflected in the mean score of 4.37 (indicating the highest level of support) for this indicator and in the mean score of 4.24 (indicating the lowest level of support) for teachers' beliefs, in comparison to the other indicators.

The data reveals that the TLE teacher respondents from public secondary schools in Davao de Oro possess an exceptionally high level of attitude, as evidenced by the two indicators that have been identified. This suggests that the participants held a significantly positive or very high attitude. The overall mean was derived by calculating the average of the respondents' responses and organizing them based on their respective mean values.

Results of the research support the study of Coban and Atasoy (2019), who explained that educators hold a favorable view regarding integrating technology in the classroom due to their conviction that it enhances students' learning. Malinina (2015) emphasized that foreign language instructors favor ICT and its potential influence on students' proficiencies. This implies that Educators consider Information and Communication Technology (ICT) integration to be a practical approach for facilitating and enhancing students' educational experience, according to their perceptions and beliefs. Their favorable perception of technology in education stems from the belief that it enhances students' academic achievements and experiences.

In addition, the study conducted by Khamprem and Boonmoh (2019) revealed that instructors held positive attitudes toward technology. They must remain current on the latest developments, master newly acquired technological skills, and implement those competencies in their classrooms. Educators are not only perceived as possessing a favorable disposition towards technology, but they are also required to participate in technological endeavors actively, consistently improve their competencies, and proficiently incorporate technological devices into their pedagogical approaches to improve their learners' academic achievements.

The data regarding the Information and Communication Technology (ICT) Competency level of public secondary TLE teachers in Davao de Oro are displayed in Table 2. The mean score of 3.84, which corresponds to a high rating, suggests that the teachers frequently demonstrate competency in ICT. The standard deviation of 0.776 further supports this conclusion. The elevated level prompted the respondents to assign high ratings to the indicators.

Table 2: Perceived Level of Information and Communication Technology (ICT) Competency Level

Indicators	**SD**	**Mean**	**Descriptive Level**
Technological Operations and Concepts	0.837	3.97	High
Social and Ethical	0.814	3.89	High
Pedagogical	0.844	3.83	High
Professional	0.906	3.65	High
Overall	**0.776**	**3.84**	**High**

The evaluation of the respondents' Information and Communication Technology (ICT) competency level encompassed the following domains: professional, social and ethical, pedagogical, and technological operations and concepts. The mean scores for all Information and Communication Technology (ICT) Competence level indicators for TLE instructors were utilized to calculate the specified overall mean. The responses are arranged according to their respective means, from highest to lowest. With a mean score of 3.97 or higher, technological operations and concepts is the indicator with the highest mean score. Conversely, a professional receives the lowest mean score of 3.65 or higher.

According to the data, the teacher respondents from all Davao de Oro institutions have a high level of Information and Communication Technology (ICT) competence. This implies that the participants exhibit a considerable degree of proficiency in information and communication technology (ICT) within the scope of their work. The aggregate mean was calculated from the respondents' responses, arranged from highest to lowest according to their respective means.

It supports the study of Rodriguez (2021), which revealed that high school administrators and instructors in Antique, Philippines, possessed a considerable degree of self-perceived proficiency in various facets of computer utilization. Teachers' perceptions of technology in instruction and learning are influenced by their level of competency (Li et al., 2018). How educators perceive their technological proficiency

significantly influences their perspectives and methods regarding the classroom implementation of Information and Communication Technology (ICT). High levels of examined competency are expected to benefit the perspectives and approaches of educators concerning proficiency in integrating tech within school settings.

The item mean scores of Use of Information and Communication Technology (ICT) of TLE teachers with an overall mean of 3.95, described as high, are presented in Table 3, indicating that ICT skills often manifest with an overall standard deviation of 0.895. The high rating resulted from the respondents' high ratings for all items. This indicates that respondents' responses to using Information and Communication Technology (ICT) were often manifested. The result of calculating the responses of the respondents was the combined mean. Also, this implies that the Teacher's Use of Information and Communication Technology (ICT) is often manifested in the item *I use Word processor in teaching, pedagogy, and assessment (e.g., Microsoft Word)* with a mean score of 4.10 or high as the highest mean and the item of *I use ICT for Communication in teaching, pedagogy, and assessment (e.g., Email)* with a mean score of 3.85 or high as the lowest mean.

This result aligns with the study of Coban and Atasoy (2019), who explained that educators hold a favorable view regarding the application of Information and Communication Technology (ICT) in the classroom because they believe it enhances students' learning. A study by Hatlevik and Hatlevik (2018) asserted that once educators integrate technological skills into the educational setting, a support system and Information and Communication Technology (ICT) practice are essential. Using technology in the instructional process will enhance the quality of instruction. Educators must be trained to effectively utilize Information and Communication Technology (ICT) in the classroom (Khan, 2020). While educators recognize the essence of incorporating Information and Communication Technology (ICT) into the classroom, they must also provide adequate training, consistent practice, and thorough support systems to utilize technology effectively to improve instruction effectiveness and maximize students' learning experiences.

Table 3: Level of Use of Information and Communication Technology (ICT)

Items	**SD**	**Mean**	**Descriptive Level**
I use Word processors in teaching, pedagogy and assessment (e.g. Microsoft Word).	0.949	4.10	High
I use Spreadsheet in teaching, pedagogy and assessment (e.g. Microsoft Excel).	0.973	4.01	High
I use Presentation in teaching, pedagogy and assessment (e.g. Microsoft PowerPoint).	0.957	4.14	High
I use Database in teaching, pedagogy and assessment (e.g. Microsoft Access).	1.060	3.67	High
I use Search engines in teaching, pedagogy and assessment (e.g. Internet/WWW).	1.035	3.91	High
I use ICT for Communication in teaching, pedagogy and assessment (e.g. Email).	1.049	3.85	High
Overall	**0.895**	**3.95**	**High**

The correlation between the attitude of TLE instructors and the implementation of Information and Communication Technology (ICT) in education is displayed in Table 4. With a p-value of 0.000, which is less than the significance level of 0.05, the value of 0.529 indicates an overall positive correlation between the attitude of the teacher and their use of ICT. This provides substantial evidence against the null hypothesis. Therefore, the null hypothesis is denied, explaining the positive and statistically significant correlation observed between the attitude of a TLE teacher and their utilization of Information and Communication Technology (ICT) as an instructional instrument. Instructors with a more favorable disposition and convictions concerning the utilization of Information and Communication Technology (ICT) are more inclined to integrate said technology into their pedagogical approaches.

A substantial correlation has been frequently observed in research between the mental outlook of teachers and their application of Information and Communication Technology (ICT) in the classroom (Alzaidiyeen et al., 2010; Isnani & Widyantoro, 2020; Makhlouf & Bensafi, 2021; Player-Koro, 2012). Fostering favorable perceptions of technology, specifically those concerning its efficacy in the realms of education and instruction, is a critical element in advancing its implementation (Isnani & Widyantoro, 2020; Makhlouf & Bensafi, 2021; Player-Koro, 2012). Teachers' limited utilization of Information and Communication Technology (ICT) may persist despite favorable attitudes, owing to the different influencing factors (Isnani & Widyantoro, 2020). Thus, although attitudes hold significance, a more all-encompassing comprehension of the determinants that impact the utilization of Information and Communication Technology (ICT) is required. It emphasized that although favorable attitudes towards Information and Communication Technology (ICT) among educators are vital for its effective execution, supplementary elements such as the accessibility of resources, training programs, support structures, and institutional policies are equally significant in determining the practical implementation and application of technological innovations in academic environments.

Table 4: Significance of the Relationship between the Teacher's Attitude and Use of Information and Communication Technology (ICT)

Teacher's Attitude	**Use of ICT Overall**
Attitude towards using ICT as an educational tool	.511* (0.000)
Teachers' beliefs	.501* (0.000)
Overall	.529* (0.000)

*Significant at 0.05 significance level.

Table 5 illustrates the significance of the correlation between the utilization of Information and Communication Technology (ICT) and the levels of competency in ICT. The obtained value of 0.800 indicates a comprehensive positive correlation between the

level of Information and Communication Technology (ICT) proficiency and the extent to which individuals utilize ICT. The corresponding p-value of 0.000, below the predetermined significance level of 0.05, provides robust evidence that challenges the null hypothesis that a significant relationship exists. A robust and statistically significant correlation is evident in Table 5 between the implementation of Information and Communication Technology (ICT) and a range of competency indicators about ICT. These indicators comprise knowledge of professional aspects, social and ethical implications, pedagogical comprehension, and technological operations and concepts. This suggests that teachers of TLE who possess more significant levels of competency in Information and Communication Technology (ICT) are more inclined to utilize ICT effectively, thereby demonstrating proficiency in various aspects of competence.

The results support the study of Fan et al. (2016) and Suárez-Rodríguez et al. (2018) explained the vital link between how well teachers use information and communication technology (ICT) proficiency in the classroom and how they use it. This connection is affected even more by how teachers feel about using Information and Communication Technology (ICT) and how happy they are with Information and Communication Technology (ICT) training sessions (Tasir et al., 2012). However, technology is only used for fundamental and instructional tasks regarding teaching. The amount incorporated depends on how comfortable teachers think they are with computers and how much they know about teaching (Aslan & Zhu, 2016). These results show how important it is to give teachers more knowledge and trust in Information and Communication Technology (ICT) so they can use it effectively in their lessons. To guarantee an improved and efficient integration of Information and Communication Technology (ICT) into instructional methods, it is crucial to deal with various aspects. These include nurturing positive attitudes, strengthening Information and Communication Technology (ICT) competencies, offering suitable training, and bolstering teachers' beliefs.

Table 5: Significance of the Relationship between the Use of Information and Communication Technology (ICT) and Information and Communication Technology (ICT) Competency Level

ICT Use	ICT Competency Level				
	Technological Operations and Concepts	**Social and Ethical**	**Pedagogical**	**Professional**	**Overall**
ICT Use	.778* (0.000)	.725* (0.000)	.733* (0.000)	.685* (0.000)	.800* (0.000)

Significant at 0.05 significance level.

Shown in Table 6 is the correlation between TLE teachers' attitudes and Information and Communication Technology (ICT) competency levels across four indicators. With a p-value of 0.000, which is less than the significance level of 0.05, there is an overall positive correlation between the attitudes of teachers and their level of information and communication technology (ICT) competency, as indicated by the value of 0.574. The null hypothesis is therefore refuted and suggests a significant positive relationship exists

between TLE teachers' attitudes and their Information and Communication Technology (ICT) competency levels across various indicators, including technological operations and concepts, social and ethical considerations, pedagogical understanding, professional aspects, and overall Information and Communication Technology (ICT) competency. This implies that teachers with more positive attitudes will likely have higher Information and Communication Technology (ICT) competency levels.

The results support that for the application of technology within the classroom to be successful, the correlation between teachers' attitudes and Information and Communication Technology (ICT) competency level is an essential component (Ghosh, 2021; Jegede et al., 2007; Luo et al., 2021; Sa'ari et al., 2005). A higher degree of Information and Communication Technology (ICT) competency has always been correlated with more favorable attitudes towards technology among educators (Ghosh, 2021; Jegede et al., 2007; Sa'ari et al., 2005). Numerous studies have established this correlation. Additionally, the discovery that educators' attitudes can predict their Information and Communication Technology (ICT) proficiency reinforces this correlation (Jegede et al., 2007). Teaching efficiency can be enhanced when teachers' attitudes and Information and Communication Technology (ICT) competence are congruent (Luo et al., 2021). This highlights the significance of this relationship. The correlation above is crucial for effective technology integration in educational settings; it implies that cultivating favorable attitudes and developing Information and Communication Technology (ICT) skills are necessary for successfully implementing technology in pedagogical approaches, ultimately enhancing teaching effectiveness.

Table 6: Significance of the Relationship between the Teachers' Attitude and Information and Communication Technology (ICT) Competency Level

Teachers' attitude	ICT competency level				
	Technological operations and concepts	**Social and Ethical**	**Pedagogical**	**Professional**	**Overall**
Attitude towards using ICT as an educational tool	.592* (0.000)	.539* (0.000)	.478* (0.000)	.439* (0.000)	.559* (0.000)
Teachers' beliefs	.553* (0.000)	.517* (0.000)	.498* (0.000)	.412* (0.000)	.540* (0.000)
Overall	.598* (0.000)	.551* (0.000)	.510* (0.000)	.444* (0.000)	.574* (0.000)

*Significant at 0.05 significance level.

Table 7 shows the results of path analysis, explicitly focusing on mediating effects between variables. The results show that path TA (X) to UICT (M), UICT (M) to ICL (Y), and TA (X) to ICL (Y) are significant; hence, UICT partially mediates the relationship between TA and ICL. UICT<--- TA indicates a path from "TLE Teacher's Attitude" (TA) to "Use of Information and Communication Technology (ICT)" (UICT). The unstandardized coefficient of 0.623 suggests a 0.623-unit change in the Use of ICT for a

one-unit change in a Teacher's Attitude. After standardizing both variables, the strength and direction of the relationship are represented by the standardized coefficient of 0.529. The findings indicate that a positive and statistically significant correlation exists between the attitudes of TLE instructors and their utilization of Information and Communication Technology (ICT). This finding is consistent with the research conducted by Isnani and Widyantoro (2020), which concluded that educators hold a favorable perception of the information and communication technologies they employ. A favorable disposition signifies a readiness to embrace technology and suggests a higher likelihood of successfully and significantly integrating Information and Communication Technology (ICT) into pedagogical approaches.

ICL<--- UICT represents a path from "Use of Information and Communication Technology (ICT)" (UICT) to "Information and Communication Technology (ICT) Competency Level" (ICL). The unstandardized coefficient of 0.597 indicates a 0.597 unit change in the Information and Communication Technology (ICT) Competency Level for a one-unit change in the Use of Information and Communication Technology (ICT). The standardized coefficient of 0.689 shows the standardized relationship between the two variables. The result indicates a positive and statistically significant relationship between Information and Communication Technology (ICT) and Information and Communication Technology (ICT) competency level. This outcome substantiates the investigation of Fan et al. (2016), which revealed that the level of teachers' Information and Communication Technology (ICT) skills is strongly correlated with the extent to which they utilize Information and Communication Technology (ICT) in their teaching methods. A strong association exists between instructors' ICT skill and their enthusiasm when applying Information and Communication Technology (ICT) (Tasir et al., 2012). The results indicate that improving teachers' Information and Communication Technology (ICT) proficiency can result in a greater adoption of Information and Communication Technology (ICT) in the educational setting.

ICL<---TA indicates a direct effect from "Teacher's Attitude" (TA) to " Information and Communication Technology (ICT) Competency Level" (ICL). The unstandardized coefficient is 0.214, and the standardized coefficient is 0.210. The result indicates a positive and statistically significant relationship between TLE teachers' attitudes and information and communication technology (ICT) competency level. This aligns with the research conducted by Ghosh (2021), which revealed that a direct relationship was discovered between the two variables, where attitudes were significantly influenced by technological competency. Likewise, Sa'ari (2005) and Jegede (2007) observed notable disparities in attitudes and perceived proficiency among capable and incapable teachers. Luo (2021) highlighted the significance of aligning teachers' attitudes with their Information and Communication Technology (ICT) proficiency, indicating that this alignment can improve teaching effectiveness. These findings emphasize the necessity of regular professional growth to enhance educators' attitudes and Information and Communication Technology (ICT) abilities (Thakral, 2015).

Moreover, it shows that the "Use of Information and Communication Technology (ICT)" (UICT) partially mediates the relationship between "Teacher's Attitude" (TA) and "ICT Competency Level" (ICL). In other words, the Use of Information and Communication Technology (ICT) partially explains the effect of Teacher's Attitude on Information and Communication Technology (ICT) Competency Level. Also, a Teacher's Attitude (TA) directly affects the Use of ICT (UICT). ICT (UICT) has a direct positive effect on the ICT Competency Level (ICL). Thus, all the paths are statistically significant. Rastogi and Malhotra (2013) highlighted the importance of having a positive mindset and being skilled in Information and Communication Technology (ICT) to incorporate technology into teaching methods effectively. These findings emphasize the essential significance of attitude and effective utilization of ICT in developing and improving teachers' competence levels in Information and Communication Technology (ICT).

Table 7: Mediating Effect: Path Analysis

Path	Estimates		SE	C.R.	P
	Unstandardized	Standardized			
UICT <--- TA	.623	.529	.053	11.676	***
ICL <--- UICT	.597	.689	.031	19.105	***
ICL <--- TA	.214	.210	.037	5.821	***

The findings in Table 8 indicate that the relationship between Information and Communication Technology (ICT) Competency Level and TLE Teacher Attitudes is comprehensive, with a total effect of 0.5861. This suggests a significant relationship between TLE Teacher Attitude and ICT Competency Level and that no mediating factor is at play. The relationship between the attitude of TLE teachers and their level of ICT competency is represented by the Direct Effect of 0.2142, which is independent of the use of information and communication technology (ICT). This indicates that the Information and Communication Technology (ICT) competency level is directly influenced by the attitude of the TLE teacher, independent of the level of ICT usage. The impact of the TLE instructor's attitude on the ICT Competency Level, as communicated via the Use of Information and Communication Technology (ICT), is denoted by the Indirect Effect of 0.3719. This study examines the relationship between the attitudes of TLE teachers and the utilization of information and communication technology (ICT). Furthermore, it investigates how ICT utilization impacts ICT's competency level.

As illustrated in Figure 2, the utilization of Information and Communication Technology (ICT) partially mediates the relationship between educators' attitudes and their levels of ICT competency. It proves that the level of Information and Communication Technology (ICT) competency can be influenced solely by the attitude of educators. It provides support for the findings of Trujillo-Torres et al. (2020), in which educators demonstrated positive attitudes toward technology, as evidenced by their high level of engagement with Information and Communication Technologies (ICT). The extent to which educators are inclined to integrate Information and Communication

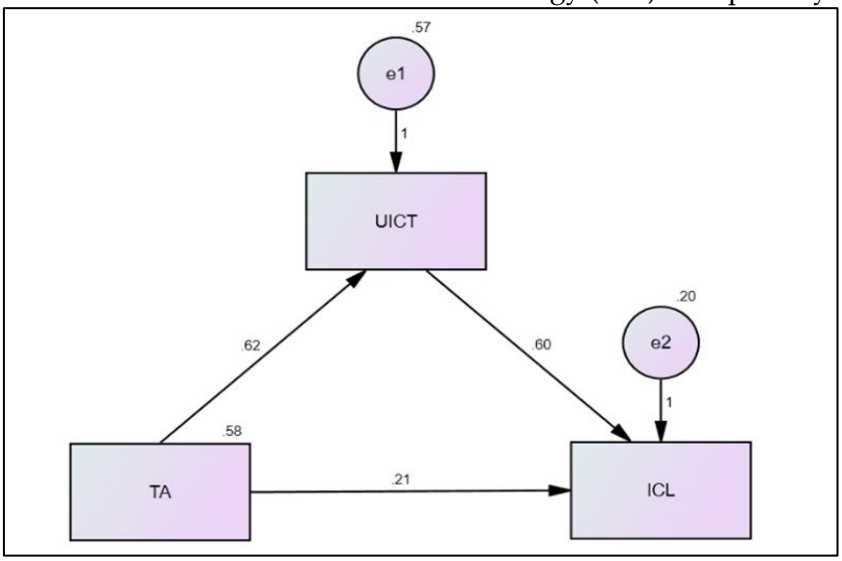
Technology (ICT) into the classroom is contingent upon their level of digital confidence and perception of school support.

Furthermore, the level of information and communication technology (ICT) proficiency was influenced by the attitude of TLE instructors due to the implementation of ICT. This demonstrates the criticality of ensuring that TLE instructors in Davao de Oro have a positive attitude toward and are proficient with Information and Communication Technology (ICT) to enhance their overall ICT competencies. According to the research conducted by Ikwuka et al. (2020), educators perceived the use of Information and Communication Technology (ICT) to deliver high-quality instruction as favorable, competent, and comfortable. The degree to which instructors are prepared to integrate Information and Communication Technology (ICT) into the learning environment is significantly influenced by their enthusiasm for ICT (Zamir & Thomas, 2019). A significant proportion of educators exhibit a positive attitude and proficiency in integrating Information and Communication Technology (ICT) resources into their lectures; consequently, students' academic performance is enhanced by implementing ICT in the classroom (Bamigboye et al., 2013). However, in light of the ongoing advancements in technology, it remains imperative that educators receive up-to-date training in the domain of Information and Communication Technology (ICT) in order to enhance their periodic proficiency in its utilization.

Table 8: Total, Direct, and Indirect Effects

		95% CI	
Effect	*b*	Lower	Upper
Total	.5861	.4982	.6740
Direct	.2142	.1416	.2868
Indirect (mediation)	.3719	.2754	.4712

Figure 1: The mediating Effect of the Use of Information and Communication Technology (ICT) on the relationship between Teacher Attitude and Information and Communication Technology (ICT) Competency Level



Note: X = Teachers' Attitude (TA); Y = ICT Competency Level (ICL); M = Use of ICT (UICT).

The study emphasizes the positive correlation between teachers' attitudes toward Information and Communication Technology (ICT), utilization, and competency levels. In order to enhance the integration of Information and Communication Technology (ICT), it is imperative to prioritize the improvement of instructors' attitudes and promote consistent utilization, hence fostering an increase in their proficiency (Bamigboye et al., 2013; Victor, 2013; Yusuf & Balogun, 2011; Zhu et al., 2021). Furthermore, Information and Communication Technology (ICT) usage partially mediates the relationship between teachers' attitudes and competency levels, highlighting the crucial role of usage in enhancing competency (Schibeci, 2008). Educators need guidance and training on using Information and Communication Technology (ICT) tools and how to use them effectively (Chisango et al., 2020). This can be accomplished through programs of ongoing support and professional development.

This study aligns with existing literature regarding integrating Information and Communication Technology (ICT) in education, both theoretical and empirical. The high positive attitude toward Information and Communication Technology (ICT) usage aligns with the Technology Acceptance Model (TAM), which suggests that a positive attitude toward technology adoption significantly impacts actual usage (Sharma & Srivastava, 2019). The results of the study are consistent with the Technology Acceptance Model (TAM), which shows a significant connection between attitude towards Information and Communication Technology (ICT), usage, and competency levels leading to support the study of Al-gahtani (1999) that individual's attitude toward the use of the Internet is a significant factor affecting whether or not they will use Internet technologies. People's attitude toward using the Internet predicts their behavioral intentions and actual Internet usage (Amoroso, 2009).

Furthermore, the findings of this research demonstrated that teachers of TLE who possess more significant levels of competency in Information and Communication Technology (ICT) are more inclined to employ ICT efficiently. This encompasses various aspects of competence based on the Technological Pedagogical Content Knowledge (TPACK) framework, initially proposed by Mishra and Koehler in 2006. Educators who are more proficient in Information and Communication Technology (ICT) can effectively incorporate it into their pedagogical strategies and subject-matter knowledge. Consequently, they can use ICT more extensively in their instructional practices (Suarez-Rodriguez et al., 2018). Research regularly demonstrates a favorable association between teachers' Information and Communication Technology (ICT) proficiency and their use of Information and Communication Technology (ICT) in instructional approaches, a crucial component of TPACK (Kanbul et al., 2022; Khine et al., 2016; Kihoza et al., 2016; Yurdakul & Coklar, 2014). This association is notably essential in Technical and Vocational Education, where teachers' expertise regarding computer pedagogical technology is vital (Kanbul et al., 2022).

Additionally, this study demonstrates that instructors with a more positive outlook on ICT are more likely to demonstrate advanced expertise in this domain. This discovery was consistent with the Unified Theory of Acceptance and Use of Technology

(UTAUT), which Venkatesh et al. developed in 2003. According to the UTAUT theoretical paradigm, the practical implementation of technology is dictated by behavioral intention. The purported probability of technology adoption is determined by the direct impacts of four foundational constructs: performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003). According to the Unified Theory of Acceptance and Use of Technology (UTAUT), there is a relationship between an individual's proficiency and their attitudes toward technology. In order to effectively communicate technical knowledge (ICT) to their pupils, educators must possess positive attitudes and a robust sense of self-efficacy (Milbrath & Kinzie, 2000).

5. Recommendations

The following suggestions are made in light of the findings and conclusions presented: In teacher's attitude, although the mean score for teachers' beliefs is categorized as very high, it is slightly lower than the attitude mean score. Thus, special training focused on these beliefs about using technology is recommended. The training should emphasize the advantages of technology in engaging students, improving learning, and enhancing teaching. In addition, it is encouraged to update education policies at national and regional levels to ensure technology is included in specific curricula related to Technology and Livelihood Education (TLE). This should stress the importance of technology skills for TLE teachers, aligning with modern educational needs.

Collaboration between curriculum developers and education boards is encouraged to integrate thorough technology components into TLE curricula. This should cover responsible use of technology, advanced tech skills, and creative teaching methods using technology. These improvements will help TLE teachers better prepare students for a world increasingly relying on technology.

School Administrators and TLE Master Teachers need to be more attentive and cautious about the teachers' needs concerning teacher attitudes and ICT Competency level. As an administrator, make it an ongoing initiative to ensure teachers stay updated with the latest advancements in educational technology, create platforms where knowledge can be shared, and encourage discussions to generate ideas and strategies for advancing the integration of ICT in TLE education. Showing care for the proficiency and attitudes of teachers in using technology can foster a school environment that emphasizes progress, education, and adaptability, which will play a role in an environment that contributes to a future-oriented setting.

The study's independent variable was discovered to have a significant effect on the mediating variable; we should encourage research to explore the aspects that contribute to teacher's positive attitudes and beliefs regarding using ICT in education. Understanding the factors influencing these perceptions can help us develop interventions and policies to enhance ICT integration in schools. The mediating variable, the use of ICT, and the dependent variable, the ICT Competency Level, was found to

have a significant relationship. Hence, future researchers may study its impact on students' academic progress.

Further, future researchers are encouraged to conduct long-term studies to observe how the attitudes and competencies of TLE teachers towards ICT change over time. These research endeavors will offer insights into how the integration of ICT can be sustained and developed. It is essential to foster a culture of research, allowing educators and curriculum masters to adjust their strategies according to evolving needs and technological advancements.

6. Conclusion

In Davao de Oro, TLE teachers exhibit a commendable level of Information and Communication Technology (ICT) proficiency, a high ICT use, and an enthusiastic disposition toward ICT implementation. These attributes are in coherence with the TLE teachers' inclination toward ICT and contribute to the creation of a setting in the classroom that is conducive to the effective integration of ICT.

There is a significant relationship between the variables examined in the study, namely the approach taken by TLE teachers and the level of information and communication technology (ICT) proficiency, the utilization of ICT, and the attitude of TLE teachers toward ICT proficiency. Both the utilization of Information and Communication Technology (ICT) instruments and the development of TLE teachers' proficiency in employing ICT are significantly influenced by the positive attitude that TLE teachers have toward ICT. Promoting a positive attitude among TLE instructors regarding Information and Communication Technology (ICT) can augment the integration and utilization of ICT in the educational setting, thereby yielding mutual advantages for TLE instructors and students.

The study's observation of partial mediation suggests that the practical application of Information and Communication Technology (ICT) instruments significantly influences the growth of Information and Communication Technology (ICT) Competency among TLE teachers. The findings of the study align with widely recognized theoretical frameworks, such as the Technology Acceptance Model (TAM), the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Technological Pedagogical Content Knowledge (TPACK). These theories provide further support for the claim that the attitudes of TLE instructors toward Information and Communication Technology (ICT) significantly impact its use and competence.

Despite their exceptionally positive dispositions and advanced knowledge of Information and Communication Technology (ICT), the study demonstrates the importance of ongoing professional development and assistance for TLE instructors. Facilitating access to resources, providing training, establishing support systems, and adhering to institutional policies are critical elements in enhancing information and communication technology (ICT) integration. By attending to these facets, one can attain increased teaching efficacy and elevate students' learning experiences.

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