

---

# ICT Skills And Integration In Teaching Technology And Livelihood Education (TLE): Basis For Media Literacy Education Resources Program

**Rosalie O. Datu**

Head Teacher I

Madapdap Resettlement High School

*Lyceum-Northwestern University*

[rosalie.datu001@depev.gov.ph](mailto:rosalie.datu001@depev.gov.ph)

*Abstract* — This research investigated the demographic profiles of teachers and how they integrate information and communication technology (ICT) into their Technology and Livelihood Education (TLE) classes. The study analyzed several variables, including the educators' ages, job positions, years of service, academic attainment, and participation in relevant training. Data collected from the participants revealed a highly diverse workforce with a broad spectrum of classroom experiences. The primary focus was on measuring how these professionals incorporate ICT during instruction, paying special attention to file management, multimedia usage, and online learning platforms.

The findings showed that educators generally have a strong baseline of ICT integration. They perform exceptionally well in foundational tasks like navigating presentation software, securing documents, and finding digital materials online. However, certain gaps remain, particularly when it comes to utilizing more complex instructional features and specialized digital assessment tools. Statistical tests revealed a strong positive correlation between a teacher's core computer skills and their overall success in bringing ICT into the TLE curriculum. This indicates that building up basic computer proficiency directly improves classroom technology use.

Finally, the study evaluated the severity of specific technology-related hurdles. The most prominent issues included the ongoing need for technical support, difficulty mastering new tools, and a general reluctance to adopt unfamiliar software. Because these challenges were deemed highly serious, there is an urgent need for targeted training programs to improve instructional effectiveness.

***Keywords: ICT Skills, Integration, Media Literacy, TLE, Teacher Competency***

---

---

## I. INTRODUCTION

Information and Communication Technology (ICT) has fundamentally reshaped the modern educational landscape, making its everyday integration an absolute necessity for 21st-century learning. Introducing digital tools into the classroom does more than just modernize a lesson plan; it shifts traditional teaching dynamics and helps create an environment where students are more motivated. However, the success of this shift relies heavily on the individual teacher's skill level, patience, and digital literacy. While schools increasingly view technology as a cornerstone of quality education, many educators still struggle to figure out how to effectively deploy these tools during their daily routines. Recognizing this specific gap, this study evaluates the baseline ICT skills and integration practices of public-school teachers in the Schools Division of Mabalacat City. By closely examining their proficiency in teaching Technology and Livelihood Education (TLE), the research establishes a concrete foundation for developing a comprehensive media literacy program tailored to their specific needs.

### Literature Review

The theoretical underpinning for integrating technology into educational settings is strongly linked to constructivism, a learning philosophy heavily associated with Vygotsky. This theory posits that learners actively construct new knowledge by building upon their existing understandings. As the educational landscape evolves, so does the fundamental concept of "literacy." It has shifted from strictly traditional print to encompass modern practices mediated by new computing and communication technologies (Area, Gutiérrez & Vidal, 2022; Belshaw, 2021). Today, digital literacy is widely regarded as a complex blend of traditional reading skills and practical media-studies experience (Ilomäki, Kantosalo, & Lakkala, 2021).

In a real-world classroom application, integrating these digital tools is no longer just an option. According to Diblas and Paolini (2022), Information and Communication Technology (ICT) significantly helps educators improve the consistency and overall efficiency of their teaching processes. Because widespread internet access enables learning anytime, anywhere, ICT-assisted instruction has become an indispensable element of modern educational programs (Thomas & Stratton, 2006; Abedalaziz, Jamaluddin & Leng, 2022). However, successful classroom

---

implementation relies on several practical factors. Researchers emphasize that effective ICT use is heavily influenced by equipment availability, accessibility, and reliable technical and administrative support (Al-Ruz & Khasawneh, 2021; Fu, 2022; Lin, Wang & Lin, 2022; Srivastava et al., 2014).

Because almost every aspect of contemporary human life requires basic computer knowledge, Osuji (2020) argues that it is practically mandatory for modern teachers to be highly computer literate. Educators need to stay abreast of technological developments to properly cater to learners, especially since computing becomes vital to children from a very young age (Bhebhe & Cosmas, 2016). As educational paradigms shift from simple information reception to active knowledge creation, the use of digital tools for both curriculum design and formative assessment has become paramount (Khashkhuu, 2017). Ultimately, evaluating an educator's readiness requires looking beyond conventional metrics to assess their digital competence using non-traditional standards, such as their ability to manage and share digital content effectively in real-world contexts (Abdulteef & Khateeb, 2017).

## II. METHODOLOGY

To systematically gather and evaluate information, the study employed a quantitative descriptive survey design. It specifically aimed to measure ICT literacy levels and the practical integration of technology by secondary TLE teachers in the Mabalacat City Schools Division during the 2023-2024 academic year. The target population consisted of 144 teachers, who were selected through convenience sampling based on their accessibility and willingness to participate in the research.

Data collection was carried out using a structured, Likert-type questionnaire split into three distinct parts. The first section captured demographic profiles, the second assessed current levels of ICT integration in the classroom, and the third identified specific technology-related problems and measured their perceived severity. Once collected, the data were subjected to statistical treatment. Frequency counts and percentages were used to map the demographic profiles, while weighted means were calculated to accurately assess both integration levels and the seriousness of the encountered hurdles.

---

## Ethical Considerations

Strict ethical protocols were observed throughout the data-gathering process to ensure the absolute protection of the participants. The privacy and anonymity of the teacher-respondents were treated with paramount importance. Their identities were completely concealed, ensuring that their honest responses and individual scores would have absolutely no impact on their professional performance ratings. Furthermore, the research was conducted ethically to protect respondents' welfare without compromising the reliability of the data collected.

## III. RESULTS AND DISCUSSION

This chapter presents the discussion of findings from the data-gathering procedure. The data-gathering procedures were based on the questions posed at the beginning of this study.

### 1. Profile of Teachers

#### 1.1 Age

**TABLE 1.1**  
**AGE**  
**N=144**

Age	f	%
61-64 years old	1	1
56-60 years	7	5
51-55 years	13	9
46-50 years	20	14
41-45 years	26	18
36-40 years	36	25
31-35 years	30	21
26-30 years	7	5
less than 25 years	3	2
Total	144	100

The majority of teachers fall within the age range of 36 to 50 years, accounting for 57% of the sample. Specifically, 25% of the teachers are aged between 36 and 40 years, 18% between 41 and 45 years, and 14% between 46 and 50 years. This distribution suggests that a significant proportion of teachers in the study are middle-aged.

Further analysis indicates a relatively balanced representation across different age groups, with no single age category dominating the sample. However, it's notable that there is a decline in the number of teachers in the older age brackets, particularly those aged 56 years and above. Only 1% of the teachers are in the 61-64 age group, while 5% fall in the 56-60 age group. Conversely, there is a smaller representation of younger teachers, with only 2% aged below 25 years and 5% falling in the 26-30 years category.

## 1.2 Position

**TABLE 1.2**  
**POSITION**  
**N=144**

Position	f	%
Master Teacher II	3	2
Master Teacher I	7	5
Teacher III	24	17
Teacher II	33	23
Teacher I	76	53
Total	144	100

The largest proportion of teachers, comprising 53% of the sample, holds the position of Teacher I. Following this, Teacher II accounts for 23% of participants, while Teacher III accounts for 17%. Master Teacher I and Master Teacher II constitute smaller percentages of the sample, with 5% and 2%, respectively.

This distribution reflects the hierarchical structure commonly observed within educational institutions, where teachers progress through different ranks based on factors such as experience,

qualifications, and professional development. The predominance of Teacher I positions suggests that a significant portion of the sample consists of relatively early-career educators or those who have recently entered the teaching profession. Conversely, the smaller representation of Master Teacher II positions indicates that fewer teachers in the sample have reached higher ranks within the teaching hierarchy.

Analyzing the distribution of teachers by position is essential for understanding the varying levels of experience, expertise, and responsibilities among participants in the study. Teachers in different positions may possess distinct skill sets, instructional approaches, and attitudes toward integrating ICT tools into TLE instruction. For instance, Master Teachers may have more extensive experience and leadership responsibilities, which may influence their perspectives on technology integration compared to teachers in lower positions.

### 1.3 Length of Years in Service

**TABLE 1.3**  
**LENGTH OF SERVICE**  
**N=144**

Length of Service	f	%
20 years and over	7	5
15-19 years	19	13
10-14 years	26	18
5-9 years	37	26
less than 5 years	55	38
Total	144	100

The largest proportion of teachers, constituting 38% of the sample, have served for less than five years. This indicates a sizable portion of relatively early-career educators who may be in the initial stages of their teaching profession, still establishing themselves in their roles and gaining experience.

Furthermore, 26% of the teachers have served for 5-9 years, while 18% have tenures of 10-14 years. These categories collectively represent teachers with a moderate level of experience in the field, suggesting that a significant portion of the sample comprises mid-career educators who have progressed beyond the novice stage but may not yet have reached the pinnacle of their professional development.

Moreover, 13% of the teachers have served for 15-19 years, and 5% have served for 20 years or more. These groups likely include seasoned educators who bring a wealth of experience and institutional knowledge to their teaching practice. Their extended tenures may have afforded them opportunities to refine their instructional strategies, deepen their understanding of pedagogy, and witness the evolution of ICT integration in education over time.

### 1.4 Highest Educational Attainment

**TABLE 1.4**  
**HIGHEST EDUCATIONAL ATTAINMENT**  
**N=144**

Highest Educational Attainment	f	%
Doctoral degree	3	2
Earned doctoral units	9	6
Master's degree	19	13
Earned masteral units	104	72
Bachelor's degree	10	7
Total	144	100

The majority of teachers, comprising 72% of the sample, have earned master's units, indicating a significant emphasis on postgraduate education among educators. This suggests a proactive approach to professional development, with many teachers pursuing advanced studies to enhance their expertise and qualifications in their respective fields.

Additionally, 13% of teachers hold master's degrees, indicating a substantial portion of educators who have completed formal graduate-level education. A master's degree is often

considered a hallmark of advanced professional knowledge and skills, signifying a commitment to continuous learning and professional growth. Teachers with master's degrees may bring specialized knowledge and expertise to their teaching practice, enriching the educational experience for their students and contributing to the overall quality of instruction.

Furthermore, 6% of teachers have earned doctoral units, while 2% hold doctoral degrees. Although these percentages represent smaller cohorts within the sample, educators with doctoral qualifications play a vital role in the academic community, often serving as leaders, researchers, and mentors.

Moreover, 7% of teachers hold bachelor's degrees, indicating they have completed undergraduate education. While bachelor's degrees are foundational credentials for entry into the teaching profession, the relatively smaller percentage of teachers with only undergraduate qualifications highlights the trend towards higher levels of educational attainment among educators. This emphasis on advanced education underscores the importance of continuous learning and professional development in the teaching profession, as educators strive to stay abreast of emerging trends, pedagogical approaches, and technological advancements.

### 1.5 Relevant Trainings Attended

**TABLE 1.5**  
**RELEVANT TRAININGS ATTENDED**  
 N=144

Relevant Trainings Attended	f	%
International	2	1
National	5	3
Regional	13	9
Division	46	32
Cluster/Municipal	48	33
School	31	21
Total	144	100

---

At the international level, only 1% of teachers have attended relevant trainings, indicating a relatively low participation rate in global professional development opportunities. While international trainings may offer valuable insights and perspectives on ICT integration in education, factors such as accessibility, cost, and eligibility criteria may limit participation among teachers.

Similarly, 3% of teachers have attended national-level trainings, representing a modest proportion of the sample. National-level initiatives often provide opportunities for teachers to engage with experts, policymakers, and practitioners in the field of ICT integration, fostering collaboration and knowledge-sharing at the national level.

In contrast, regional, division, and cluster/municipal-level trainings demonstrate higher participation rates among teachers, comprising 9%, 32%, and 33% of the sample, respectively. These findings suggest that teachers are more likely to engage in professional development activities organized at the regional, division, and cluster/municipal levels, which may be more accessible, relevant, and tailored to local needs and contexts.

Regional-level trainings, in particular, play a significant role in building the capacity of teachers in ICT skills and integration, providing opportunities for hands-on learning, collaboration, and networking within a regional context. Similarly, division and cluster/municipal-level initiatives offer localized support and resources to teachers, enabling them to enhance their ICT competencies and integrate technology effectively into teaching and learning practices.

Moreover, school-level training accounts for 21% of the sample, indicating a substantial proportion of teachers who have participated in professional development activities organized within their own schools. School-level initiatives may focus on addressing specific ICT needs and priorities identified at the school level, providing targeted support and resources to teachers based on the unique context and challenges of their school environment.

**2. Level of the Teachers’ ICT Integration in Teaching TLE Among**

**Their Students**

**TABLE 2**  
**LEVEL OF THE TEACHERS’ ICT INTEGRATION IN TEACHING TLE**  
**AMONG THEIR STUDENTS**

Statement	Mean	Description
The TLE teacher secures his/her documents using Google Drive.	4.86	Excellent
The TLE teacher is knowledgeable in converting word document into PDF file.	4.80	Excellent
The TLE teacher can insert information from mass media (television / radio) in the learning process.	4.62	Excellent
The TLE teacher uses Microsoft PowerPoint application to present teaching material.	4.38	Excellent
The TLE teacher process student grades/scores using Microsoft Excel application.	3.72	Very Good
The TLE teacher uses Google Meet/Zoom and other online platform in meeting his/her learners in the new-normal.	3.7	Very Good
The TLE teacher knows how to use LCD projector to display teaching material.	3.64	Very Good
The TLE teacher uses Microsoft Word application in making a Daily Learning Log (DLL) Daily Lesson Plan (DLP) and other forms of Learning Plan.	3.53	Very Good
The TLE teacher search for teaching materials using a web browser (google chrome, Mozilla Firefox, internet explorer).	3.37	Good
The TLE teacher is knowledgeable in using video as a learning media.	2.88	Good

The TLE teacher can maximize the potential of ICT as it offers variety of teaching-learning process in the new normal set-up.	2.83	Good
The TLE teacher uses Adobe Flash as a learning media.	2.82	Good
The TLE teacher can formulate electronic quiz/test/evaluation/assessment using google form.	2.7	Good
The teacher knows how to use the features of Google Form.	2.52	Fair
The TLE teacher can interpret learners' data provided by the Google Form	2.42	Fair
Total	3.52	Very Good

The results indicate that TLE teachers exhibit a high level of competence in several areas of ICT integration. For instance, securing documents in Google Drive and converting Word documents to PDF both received excellent ratings, with mean scores of 4.86 and 4.80, respectively. These findings suggest that TLE teachers are adept at utilizing cloud storage solutions and document formatting tools to organize and share instructional materials effectively.

Furthermore, the ability to incorporate information from mass media, such as television or radio, into the learning process received an excellent rating with a mean score of 4.62. This indicates that TLE teachers are proficient in leveraging multimedia resources to enrich teaching content and engage students in real-world contexts.

Moreover, the use of Microsoft PowerPoint for presenting teaching materials received an excellent rating, with a mean score of 4.38. This suggests that TLE teachers are skilled at creating visually engaging presentations that facilitate learning for their students.

While the overall level of ICT integration is assessed as "Very Good" with a total mean score of 3.52, there are areas where TLE teachers demonstrate slightly lower proficiency. For example, processing student grades using Microsoft Excel received a "Very Good" rating with a mean score of 3.72, indicating that while teachers are competent in using spreadsheet software for administrative tasks, there may still be room for improvement.

Similarly, the use of online platforms such as Google Meet/Zoom for virtual meetings and LCD projectors for displaying teaching materials received "Very Good" ratings, suggesting that while teachers are familiar with these tools, there may be opportunities to enhance their use and effectiveness in the classroom.

### 3. Significant Relationship Between the Teachers’ Level of Computer Skills and ICT Integration in their Teaching of TLE

**TABLE 3**  
**SIGNIFICANT RELATIONSHIP BETWEEN THE TEACHERS’ LEVEL OF COMPUTER SKILLS AND ICT INTEGRATION IN THEIR TEACHING OF TLE**

		ICT Integration in their Teaching of TLE
Teachers’ Level	Pearson r	0.619
of Computer	Value	0.000
Skills	Interpretation	Significant

The correlation coefficient, Pearson r, is 0.619, with a corresponding p-value of 0.000, indicating a statistically significant relationship. This finding suggests a strong positive correlation between teachers' computer skills and their ability to integrate ICT effectively into their teaching practices within the TLE curriculum. A Pearson r value close to 1 indicates a strong positive linear correlation, implying that as teachers' computer skills increase, ICT integration in their TLE teaching tends to increase.

The significant relationship observed underscores the importance of teachers' computer proficiency as a determining factor in their ability to effectively leverage ICT tools and resources in the classroom. Teachers with higher levels of computer skills are better equipped to use ICT applications, software, and digital platforms to enhance the teaching and learning process in TLE subjects.

The interpretation of the significant relationship suggests that efforts to improve teachers' computer skills through training, professional development programs, and access to resources can positively impact their ability to integrate ICT effectively into their teaching practices. By

enhancing teachers' computer literacy and proficiency, educational institutions can empower them to harness the full potential of ICT tools to enrich students' teaching and learning experiences in TLE courses.

Furthermore, the findings suggest that strategies to promote media literacy and ICT integration in TLE education should prioritize enhancing teachers' computer skills and technological competencies. Investing in teachers' professional development to improve their computer literacy can support the successful implementation of ICT-driven instructional approaches and the cultivation of media literacy skills among students in the TLE curriculum.

#### 4. ICT-Related Problems in Teaching TLE Encountered by the Teachers and

##### How Serious are they

**TABLE 4**  
**ICT-RELATED PROBLEMS IN TEACHING TLE ENCOUNTERED BY THE**  
**TEACHERS AND HOW SERIOUS ARE THEY**

Statement	Mean	Description
The TLE teacher looks for a computer literate individual who could assist him/her in formulating electronic quiz / test / evaluation / assessment using Google Form.	4.8	Very Much Serious
The TLE teacher needs support on how to use LCD projector to display teaching material.	4.69	Very Much Serious
The TLE teacher needs mastery on how to use the features of Google Form.	4.31	Very Much Serious
The TLE teacher prefers to use other ways in securing his/her documents because of lack of knowledge using Google Drive.	3.84	Serious
The TLE teacher needs to recall previous experiences on how to search for teaching materials using a web	3.81	Serious

browser (google chrome, Mozilla Firefox, internet explorer).

Converting word document into PDF file creates untoward feeling on the teacher.	3.61	Serious
The TLE teacher needs technical assistance in using the commands in Microsoft PowerPoint application to present teaching material.	3.53	Serious
The TLE teacher uses Google Meet / Zoom and other online platform in meeting his/her learners in the new-normal with the assistance of others.	3.52	Serious
The TLE teacher finds it hard to process student grades/scores using Microsoft Excel application.	3.43	Serious
The TLE teacher needs ample time to process his/her ideas on how to insert information from mass media (television / radio) in the learning process.	3.42	Serious
The TLE teacher finds it difficult to use Adobe Flash as a learning media.	3.34	Moderately Serious
The TLE teacher has a difficulty in interpreting learners' data provided by the Google Form.	2.65	Moderately Serious
The TLE teacher calls for help in using video as a learning media.	2.64	Moderately Serious
The TLE teacher finds it difficult to maximize the potential of ICT as it offers variety of teaching-learning process in the new normal set-up.	2.5	Slightly Serious
The TLE teacher could hardly use Microsoft Word application in making a Daily Learning Log (DLL), Daily Lesson Plan (DLP) and other forms of Learning Plan.	2.32	Slightly Serious
<b>Total</b>	<b>3.49</b>	<b>Serious</b>

---

One of the most serious issues identified is the TLE teacher's struggle to find a computer-literate individual to assist in formulating electronic quizzes, tests, evaluations, and assessments using Google Forms. This problem received a mean score of 4.8, indicating that it is deemed "Very Much Serious" by the teachers. Similarly, the need for support in using an LCD projector to display teaching materials and in mastering the features of Google Forms is also considered a very serious issue, with mean scores of 4.69 and 4.31, respectively.

Other problems, such as the teacher's preference for alternative methods of securing documents due to a lack of knowledge of how to use Google Drive, and the difficulty in recalling previous experiences searching for teaching materials using web browsers, are classified as "Serious" concerns, with mean scores ranging from 3.81 to 3.84. These issues highlight the importance of providing teachers with comprehensive training and technical support to address gaps in their ICT skills and knowledge.

The table also identifies moderately serious problems faced by TLE teachers, such as challenges in using Adobe Flash as a learning medium, interpreting learners' data from Google Forms, and utilizing video as a learning medium. These issues, although less severe than others, still pose significant obstacles to effective ICT integration in TLE instruction, as indicated by mean scores ranging from 2.64 to 3.34.

The cumulative mean score of 3.49 suggests that the ICT-related problems encountered by TLE teachers are considered "Serious" on average. Addressing these challenges requires targeted interventions, including professional development programs, technical assistance, and resource allocation, to enhance teachers' ICT competencies and overcome barriers to effective ICT integration in TLE education.

### 5. Proposed Media Literacy Education Resources Program

Program Component	Description	Objective	Implementation Strategy	Expected Outcome
Training Workshops	Conduct workshops to enhance teachers' ICT skills and familiarity with various media literacy tools.	Improve teachers' ICT competencies.	Invite ICT experts to facilitate workshops.	Teachers acquire advanced ICT skills and media literacy knowledge.
Resource Development	Develop media literacy education resources, including modules, guides, and instructional materials.	Provide teachers with comprehensive teaching resources.	Form a team of educators and media experts to create resources.	Teachers have access to high-quality teaching materials for media literacy education.
Online Learning Platform	Establish an online platform for continuous professional development, featuring courses on media literacy.	Promote self-paced learning and skill enhancement.	Collaborate with educational technology providers to build the platform.	Teachers can access training materials and resources anytime, anywhere.
Peer Collaboration	Facilitate peer collaboration and knowledge sharing among teachers through online forums and communities.	Foster a supportive learning community among educators.	Create online discussion groups and forums for teachers to exchange ideas and experiences.	Teachers learn from each other, share best practices, and troubleshoot challenges together.
Evaluation and Feedback	Implement regular evaluations and feedback mechanisms to assess the effectiveness of the program.	Monitor program progress and gather insights for improvement.	Administer surveys, conduct focus group discussions, and collect feedback from participants.	Program managers can make data-driven decisions to refine and enhance the program.

The proposed Media Literacy Education Resources Program aims to address the challenges identified in the study regarding ICT skills and the integration of ICT in teaching Technology and Livelihood Education (TLE) among teachers. The program comprises various components

---

designed to enhance teachers' media literacy and ICT skills, ultimately improving their ability to integrate these technologies into their teaching practices.

The first component of the program involves conducting training workshops. These workshops will provide teachers with opportunities to enhance their ICT skills and familiarity with media literacy tools. By inviting ICT experts to facilitate these workshops, teachers can receive hands-on training and guidance in using various digital tools and platforms relevant to media literacy education. Through these workshops, teachers will gain practical skills and knowledge that they can apply directly in their classrooms.

Another essential aspect of the program is resource development. Recognizing the importance of comprehensive teaching resources, the program aims to develop media literacy education resources, including modules, guides, and instructional materials. A team of educators and media experts will collaborate to create these resources, ensuring that they are relevant, engaging, and aligned with the curriculum. By providing teachers with access to high-quality teaching materials, the program seeks to support them in delivering effective media literacy instruction to their students.

Additionally, the program includes the establishment of an online learning platform. This platform will serve as a hub for continuous professional development, offering courses on media literacy and related topics. By providing teachers with access to self-paced learning opportunities, the platform promotes ongoing skill enhancement and knowledge acquisition. Furthermore, online forums and communities will facilitate peer collaboration and knowledge sharing among teachers, fostering a supportive learning community where educators can exchange ideas, share best practices, and troubleshoot challenges together.

The program will implement regular evaluations and feedback mechanisms to continually assess its effectiveness. Through surveys, focus group discussions, and feedback collection, program managers will gather insights from participants to monitor progress and identify areas for improvement. By leveraging data-driven insights, program managers can make informed decisions to refine and enhance the program, ensuring that it meets the evolving needs of teachers and effectively supports media literacy education in TLE.

---

#### IV. SUMMARY OF FINDINGS

The study investigated the profiles of teachers and their integration of information and communication technology (ICT) into the teaching of Technology and Livelihood Education (TLE) subjects. In terms of teacher profiles, demographic factors such as age, position, length of service, highest educational attainment, and relevant training attended were examined. Findings revealed a diverse group of teachers, with ages ranging from 26 to 64 years old. The majority of teachers held the Teacher I position (53%), with varying lengths of service, and the highest educational attainment was primarily at the master's degree level (72%).

Furthermore, the research evaluated the level of ICT integration among teachers in teaching TLE subjects, focusing on various aspects such as document management, multimedia utilization, and online teaching platforms. Results indicated that teachers demonstrated a high level of ICT integration, with mean scores ranging from 2.52 to 4.86 on different aspects.

Moreover, the study investigated the significant relationship between teachers' computer skills and their ICT integration in teaching TLE. The analysis revealed a strong positive correlation (Pearson  $r = 0.619$ ,  $p = 0.000$ ), indicating that teachers with higher computer skills tended to integrate ICT more effectively into their teaching practices. This finding underscores the importance of enhancing teachers' computer proficiency to optimize ICT utilization in educational settings.

The research identified ICT-related problems encountered by teachers in teaching TLE and assessed their severity. Challenges such as the need for technical assistance, the mastery of ICT tools, and the overcoming of reluctance or difficulty in using certain technologies were identified. These challenges were deemed serious, with mean scores ranging from 2.32 to 4.8, emphasizing the urgency of providing adequate support and training to address teachers' ICT-related needs and enhance their effectiveness in integrating technology into teaching practices.

---

## V. CONCLUSIONS

Based on the results, the following conclusions were deduced:

1. Teachers demonstrate diverse profiles across age, position, length of service, highest educational attainment, and participation in relevant training programs, necessitating tailored professional development initiatives.
2. Despite high levels of ICT integration in teaching TLE subjects, there is room for improvement, particularly in the use of advanced features and tools.
3. A significant positive relationship exists between teachers' computer skills and their ICT integration in teaching TLE, highlighting the importance of enhancing digital literacy.
4. Teachers encounter various ICT-related challenges in teaching TLE, emphasizing the need for comprehensive support systems and targeted interventions.

## VI. RECOMMENDATIONS

Based on the conclusions, the following are recommended:

1. Implement targeted professional development programs to enhance teachers' proficiency with advanced ICT tools and applications, further improving their integration into TLE instruction.
2. Provide comprehensive technical support and training sessions to address specific ICT-related challenges encountered by teachers, such as mastering Google Drive, utilizing Google Forms effectively, and maximizing the potential of multimedia learning resources.
3. Foster collaboration among educators to share best practices and innovative strategies for integrating ICT into TLE instruction, creating a supportive community of practice.
4. Establish regular monitoring and evaluation mechanisms to assess the effectiveness of ICT integration initiatives and identify areas for continuous improvement, ensuring sustained progress in enhancing teachers' digital literacy and the quality of TLE instruction.

---

**REFERENCES**

- [1.] Bhebhe, Sithulisiwe & Cosmas Maphosa (2016). *Examining Teachers' Computer Literacy and Utilization of ICTs in Teaching and Learning at Primary School Level*. University of Fort Hare, Faculty of Education, East London Campus, South Africa. Retrieved from <https://www.researchgate.net> on March 18, 2021.
- [2.] Bhebhe, Sithulisiwe (2017). ICT Competency Level of Teacher in the MUST
- [3.] Bukaliya, Richard and Mubika, Augustine Kudakwashe (2021). *Teacher Competence in ICT: Implications for Computer Education in Zimbabwean Secondary Schools*. International Journal of Social Sciences and Education ISSN: 2223-4934 Volume: 1. Retrieved from [ijsse.com/sites/default/files/issues/2021/v1i4/paper 9/paper 9.pdf](https://ijsse.com/sites/default/files/issues/2021/v1i4/paper%209/paper%209.pdf).
- [4.] Cabigting, Richard (2020). *Information Communication Technology (ICT) Competencies of Learners and their Attitude Toward ICT Integration*. Lyceum-Northwestern University Dagupan City.
- [5.] Erese, Caroline (2020). *Infusion of Instructional Technologies and Learners' Performance in Mathematics in Sta. Lucia Elementary School*. Lyceum-Northwestern University Dagupan City.
- [6.] Etikan, Ilker (2016). *Comparison and Convenience Sampling and Purposive Sampling*. American Journal of Theoretical and Applied Statistics. Retrieved from <http://www.sciencepublishinggroup.com> on March 20, 2021.
- [7.] Johnson, Daniel (2021). *A Quantitative Study of Teacher Perceptions of Professional Learning Communities' Context, Process, and Content*. Retrieved from <https://scholarship.shu.edu/dissertation> on March 20, 2021.
- [8.] Khashkhuu, Ariunaa (2017). *ICT Competency Level of Teacher in the MUST*. Department of Business Administration School of Business Administration and Humanities Mongolian University of Science and Technology. Retrieved from [www.researchgate.net/publication on March 18, 2021](http://www.researchgate.net/publication/3164095).
- [9.] Khateeb, M. Al., & Abdulteef, Ahmed (2017). *Measuring Digital Competence and ICT Literacy: An Exploratory Study of In-Service English Language Teachers in the Context of Saudi Arabia*. International Education Studies; Vol. 10, No. 12; 2017. Retrieved from [files.eric.ed.gov/fulltext/EJ1164095.pdf](https://files.eric.ed.gov/fulltext/EJ1164095.pdf).

- 
- [10.] Latif, M.M., et al (2019). *ICT Literacy Level Analysis of Elementary School Teachers*. Annual Conference of Science and Technology Journal of Physics: Conference Series. Retrieved from [muh.abdul@student.upi.edu](mailto:muh.abdul@student.upi.edu) on March 19, 2021.
- [11.] Loeb, Sussana et, al. (2017). *Descriptive Analysis in Education: A Guide for Researchers*. National career for Education Evaluation and Regional Assistance, 2017.