INTERNATIONAL MULTIDISCIPLINARY JOURNAL OF RESEARCH FOR INNOVATION, SUSTAINABILITY AND EXCELLENCE (IMJRISE)
Online ISSN: 3028-032X | Print ISSN: 3028-0370
PUBLISHED BY: RISEJOURNALS.ORG
Volume 1, Issue no. 12 | 235

Teachers' ICT Utilization in the New Normal

DOI: 10.5281/zenodo.14556300

Jonathan A. Lerio
Jose B. Cardenas Memorial High School-Main Campus, Canlaon City, Negros Oriental, Philippines
https://orcid.org/0009-0002-9508-3728

Dr. Mario A. Dejito
Education Program Supervisor, DepEd Canlaon City, Philippines
https://orcid.org/0009-0008-0028-2171

Abstract

This study aimed to examine the ICT utilization of teachers in the new normal in Clusters 1 and 2 of the Division of Canlaon City, Negros Oriental, during the School Year 2021–2022. A descriptive research design was employed, utilizing a researcher-made survey questionnaire. The respondents comprised 45 ICT teachers from the identified clusters. Data analysis involved descriptive and comparative procedures, including the Mann-Whitney U test, frequency, percentage, and mean. The findings revealed key demographic characteristics of the teachers, many of whom were older, held bachelor's degrees, and had extensive teaching experience. Despite these qualifications, teachers demonstrated only moderate ICT utilization in areas such as computer equipment, software applications, and communication platforms. While they showed proficiency in using communication platforms, hesitancy and reluctance were evident in fully integrating ICT into instructional practices, particularly in multimedia presentations and providing students access to educational software. Challenges like inadequate technical skills and limited access to technological resources hindered more extensive ICT integration. Notably, demographic factors such as age, educational attainment, and years of service did not significantly affect teachers' ICT competencies. These findings show the need for targeted interventions to overcome these barriers and enhance ICT utilization among teachers, irrespective of their demographic background.

Keywords: ICT utilization, new normal, teachers

Introduction:

Nature of the Problem

ICT (Information and Communication Technology) utilization is where expertise in various information and communication technology is applied to improve existing practices. In the primary education sector, ICT utilization by teachers plays a crucial role in the efficient and effective delivery of instructional services that will be redound to improve the learners' learning outcomes. This is corroborated by Arnseth and Hatlevik (2014), who confirmed that ICT can deliver a dynamic and proactive teaching-learning environment.

Information may take many forms, including sound, video, text, and pictures, so when we consider what technology is available, that creates various kinds of information, and sometimes a mix of all of these, such as mobile phones, digital cameras, and video cameras, for example. Today, ICT is synonymous, so technology's repertory broadens to include computers and peripherals, email, MMS, and other means of communication (Finger et al., 2014).

ICT in education, which incorporates computer-based communication, is helpful for the everyday classroom teaching-learning process—being crucial participants. Teachers using ICT will motivate and inspire learners to become more responsive to the contemporary digital environment. While the goal of ICT integration is to improve and raise the quality, accessibility, and cost-effectiveness of instruction delivery to students, it also refers to the benefits of networking learning communities to meet the problems of present globalization (Albirini, 2015, p.6). Moreover, adopting ICT is not a one-time event but a continuous measure that entirely supports teaching, learning, and information resources (Young, 2015).

Teachers need to receive in-service training and development, which is critical to the success of education reform. It links the gap between teaching and learning, allowing them to address the new difficulties of directing students to greater levels of learning and self-development. The training program, such as in-service training, must include teachers' professional and personal development. For many years, in-service training has been the driving force behind many advances in teaching and learning.

The ICT utilization among teachers in the new normal determines the quality of instruction through the teaching-learning process. With this premise, the researcher sees the need to determine the level of ICT utilization among the

teachers in the new normal to determine if any instructional-related gap can be utilized as a basis for crafting an appropriate development program.

Current State of Knowledge

Garrison and Ehringhaus (2019) said that one of the key components of engaging students in the assessment of their learning is providing them with descriptive feedback as they learn. Research shows descriptive feedback is the most significant instructional strategy to move students forward in their learning. Descriptive feedback gives students an understanding of what they are doing well, links to classroom learning, and gives specific input on reaching the next step in the learning progression. In other words, descriptive feedback is not a grade, a sticker, or "good job!" A significant body of research indicates that such limited feedback does not improve student learning.

These two Microsoft Office products increase the productivity of teachers. They simplify lesson presentations and grab students' attention—especially since students in the twenty-first century are increasingly tech-savvy. Students will find it more appealing to participate in class discussions, and creating collaborative learning environments is simple. Quick document processing is possible for all document types, including those created, processed, sorted, and retrieved in Word and Excel formats; this includes class grading, quarterly reports, daily lesson planning, and test creation. Similarly, students can independently open and review the lesson, facilitating better academic performance (Paliwal, 2017).

Teachers may be less inclined to assign worksheets on paper when there are not enough photocopying options in their departments, especially when teaching large classes. With PowerPoint, you can simulate worksheets to demonstrate procedures or offer "worked examples" that demonstrate how to solve problems step-by-step. One helpful tactic is to use their paper to illustrate a problem or a process on a single slide rather than handing out worksheets. The PowerPoint program itself has an audio commentary recording feature built in. Teachers can use this method to deliver the entire lecture electronically, which is particularly helpful for online courses. The resulting file is still a standard PowerPoint file, but when the slideshow is "played," the recorded instructor voice narrates the action, and the slides advance on their own, turning whenever the lecturer has advanced during the recording University of Central Florida (2017).

In the competitive world that we are living in, upgrading our skills and knowledge is very much relevant. Despite pandemic restrictions, teachers still strive to adopt a new normal education through different webinar series. This study aimed to bridge the gap between the importance of different institutions' webinars and their utilization being extended by the teachers. This study used a quantitative type of research to quantify and analyze the difference between the extent of utilization of teachers on their learning derived from webinars attended during the new normal and the profile of the respondents. The result of the study showed that teachers always utilized their learning derived from the webinars they attended in teaching strategy, assessment of learning, and school operation; however, they often utilized their learning in instructional materials preparation. It also showed that there is no significant difference between the profile of the respondents and their extent of utilization of learning derived from webinars they attended (Baba, et.al., 2022).

Anderson (2017) conducted a study on formative assessment of student's performance. Twenty-two Year 4 math teachers from a medium-sized Swedish municipality were randomly selected to participate in a formative assessment-focused teacher professional development program. The formative assessment component of the program was designed as a cohesive unit of various integrated strategies. The study looks at how student achievement was affected by the teachers' modifications to their formative classroom practices in response to professional development input. The classes in the intervention group performed significantly better than those in the control group in a posttest given one school year after the program ended, even after adjusting for pre-test results. The study advances knowledge in two understudied areas: the influence of teacher practice based on formative assessment conceptualized as a synthesis of various formative assessment strategies and the impact of professional development in formative assessment.

Theoretical Underpinnings

This study regarding the teachers' ICT utilization in the new standard will be anchored on the enhancement training for teachers on ICT, which is critical to educational innovation and progress; their readiness to adapt to change determines whether innovations succeed or fail. Without an active intervention to bring about change, teachers' overall judgments of successful teaching are anchored in their educational experiences as students, from elementary school through their days as pre-service teachers (Tunks & Weller, 2015). These views have a strong propensity to remain, and if innovation and change are to occur, teachers' ICT skills and utilization are vital in curricular and instructional innovation.

Objectives

This study aimed to establish teachers' ICT utilization in the new normal, the basis for enhancement training in Cluster 1 and 2 of the Division of Canlaon City during the School Year 2021-2022. Specifically, this study seeks to answer the following questions: 1) the level of teachers' ICT utilization in the new normal in the area of computer equipment, software application and communication platform; 2) the level of teachers' ICT utilization in the new normal when grouped according to the aforementioned variables; and 3) the significant difference in ICT utilization level in the new normal when grouped and compared according to the aforementioned variables.

Methodology

This section presents the discussion of the research methodology used, the subjects and respondents of the study, the research instruments used, the validity and reliability of the instruments, the procedure for data gathering, and the statistical tools and procedure for data analysis.

Research Design

A descriptive research design will be used in this study on the use of ICT by teachers. This aligns with the study's goal of characterizing the extent to which teachers use ICT in the new normal as a foundation for enhanced training.

In the behavioral sciences, education, nutrition, and epidemiology, descriptive research is frequently utilized to investigate status. Its value stems from the idea that observation, analysis, and description can be used to solve issues and improve practices. Surveys, which include phone, in-person, normative, and questionnaire forms, are the most widely used method in descriptive research (Waiters, 2019).

The use of this research design to ascertain how teachers are utilizing ICT in the new normal is appropriate. This research design, which includes factor analysis, description, and observation, is suitable for the current study's goals. The use of survey questionnaires further supports this study's descriptive research design.
Study Respondents

Instruments

A questionnaire created by the researcher will be used in this study. There will be two sections to the questionnaire created by the researcher. The respondents' profile, including their age, greatest level of education, and length of service, is included in the first section. The second component will be a questionnaire with thirty (30) line items covering computer hardware, software, and communication platforms, with ten (10) lines per area. This will sufficiently capture the extent to which teachers use ICT in the new normal. This study utilized the Likert scale rating with 5 as always, 4 as oftentimes, 3 as sometimes, 2 as rarely, and 1 as almost never. The average rating of the three jurors was used as basis for the validity of the instrument. Validation average is 4.45, interpreted as "excellent". This showed that the research instrument was "Valid". And the reliability result was 0.984 interpreted as "excellent" which signifies that said instrument is highly reliable.

Data Gathering Procedure

Before the instrument was administered, the researcher received approval to conduct the study via a communication letter from the district supervisor and school division superintendent of the designated schools. Similarly, approval must be obtained from the school's designated principals. The test can be given after all appropriate communication has been observed. In compliance with the current IATF Protocol, which discourages in-person interactions, the researcher used Google Forms to administer the research instrument and retrieved it similarly.

All the information gathered for this study will be treated with the utmost confidentiality. After the survey questionnaire has been retrieved, the collected data will be sent to a statistician for tabulation, analysis, and application of the appropriate statistical tools to each problem. After that, a tabular presentation of the data will be made.

Data Analysis and Statistical Treatment

Objective No. 1 used the descriptive analytical scheme and mean to determine how many ICT tools teachers use in the new normal, such as computers, software, and communication platforms.

Objective No. 2 used the descriptive analytical scheme and mean to determine teachers' ICT utilization in the new normal when grouped according to the aforementioned variables.

Objective No. 3 used the comparative analytical scheme and Mann-Whitney U test to determine the significant difference in teachers' ICT utilization level in the new normal when grouped and compared according to the aforementioned variables.

Ethical Consideration

Participants' identities are confidential and must be kept secretive or anonymous, and it must also be guaranteed that self-identifying statements and information are not included. Anonymity and confidentiality are essential because they safeguard the privacy of persons who willingly consent to participate in research. The study must fully consider the possible harm to the participants, the researcher, the larger community, and the institution. The harm can be in the form of distress, shame, and worry, which are difficult to anticipate or manage, as well as bodily harm, resource loss, emotional harm, and reputational impairment.

Results and Discussion

This section deals with the presentation, analysis and interpretation of data gathered to carry out the objectives of this study. All these were made possible by following certain appropriate procedures so as to give the exact data and solution to each specific problem.

Table 1
Level of Teachers' ICT Utilization in the New Normal in Computer Equipment

Computer Equipment Items	**Mean**	**Interpretation**
As a teacher, I…		
1. regularly incorporate computer equipment in my classroom, such as laptops and projectors.	3.56	Great Level
2. use educational software and applications to enhance student learning.	3.33	Moderate Level
3. communicate with students through email or online platforms for educational purposes.	3.69	Great Level
4. frequently update and maintain the computer equipment available for student use.	3.56	Great Level
5. use interactive whiteboards or interactive displays for teaching.	3.40	Moderate Level
6. encourage students to use digital resources and websites for research and learning.	3.47	Moderate Level
7. provide students with electronic materials (e.g., eBooks, online articles) to supplement traditional textbooks.	3.18	Moderate Level
8. use computer-based assessments or quizzes to evaluate student performance.	3.36	Moderate Level
9. facilitate online discussions or forums for collaborative learning.	3.29	Moderate Level
10. use multimedia presentations (e.g., videos, animations) to support my lessons.	3.07	Moderate Level
Overall Mean	**3.39**	**Moderate Level**

Table 1 presents the Level of teachers' ICT utilization in the new normal in the area of computer equipment. The respondents obtained an overall mean score of 3.39, interpreted as a moderate level. However, to deepen the analysis, the teachers obtained the highest mean of 3.69 on item No. 3, stating that they should communicate with students through email or online platforms for educational purposes, which was interpreted to a great level. On the other hand, the lowest mean score of 3.07 was on item No. 10, which stated that I should use multimedia presentations (e.g., videos, animations) to support my lessons, and it was interpreted to a moderate level.

The result implies that respondents need more confidence using multimedia presentations to support their classroom lessons and instructions. Most are still trying to master computer operations and various digital technologies. Facilities like computer and audiovisual rooms were available, but the respondents did not often use them. The result suggests that capacity building in ICT education should focus on multimedia presentation during in-service training.

The result is supported by Guan et al. (2018), who noted that teachers are reluctant to use multimedia tools in classrooms due to some factors such as technical problems, lack of knowledge of authorities about the empirical problem of multimedia classes, hardware configurations, and operating system challenges, problematic multimedia instruments, the quality of multimedia, and the reluctance of teachers to use multimedia. Likewise, Yusri et al. (2019) stated that teachers' hesitation in using ICT in classroom teaching for their students is mainly because they are not confident in their ICT knowledge and skills. Lack of confidence was the main barrier for teachers to use ICT in the classroom. Teachers' lack of competence in ICT resulted in their lack of confidence in using ICT in the school, and this lack of trust resulted in resistance to change concerning the use of ICT in teaching and learning activities.

Table 2
Level of Teachers' ICT Utilization in the New Normal in the area of Software Application

Software Application Items	**Mean**	**Interpretation**
As a teacher, I …		
1. use software applications to create interactive and engaging learning materials for my students.	3.47	Moderate Level
2. incorporate educational software applications into my lessons to enhance student understanding of concepts.	3.38	Moderate Level
3. communicate with students through software applications for educational purposes.	3.18	Moderate Level
4. regularly update and explore new software applications relevant to my subject area.	3.20	Moderate Level
5. use software applications to track and analyze student performance and progress.	3.16	Moderate Level
6. encourage students to use educational software applications for self-directed learning and practice.	3.16	Moderate Level
7. provide access to software applications for students in and outside the classroom.	3.00	Moderate Level
8. use software applications to design and administer assessments or quizzes.	3.42	Moderate Level
9. facilitate online discussions or group activities using software applications.	3.31	Moderate Level
10. use multimedia presentations created with software applications to deliver content effectively.	3.38	Moderate Level
Overall Mean	**3.26**	**Moderate Level**

Table 2 shows the level of teachers' ICT utilization in the new normal area of software application. The respondents obtained an overall mean score of 3.26, interpreted as a moderate level. For further investigation, the teachers obtained the highest mean of 3.47 on item No. 1, stating the use of software applications to create interactive and engaging learning materials for my students, which was interpreted as a moderate Level. The lowest mean score of 3.00 was on item No. 7, stating to provide access to software applications for students to use in and outside the classroom, and interpreted as a moderate level.

The result implies that respondents hesitated to provide students access to software applications inside and outside the classroom. This is because the respondents avoid future problems wherein the students might misuse software applications. Teachers must understand and observe legal practices in the use of technology. They must also recognize and practice ethical use of technology on both personal and professional levels. The result relates to that of Abdulah and Ansary (2021), who concluded that students need to gain awareness of the ethical use of ICT. They need to learn more about ethics, plagiarism, and moral values. Most students agreed that inappropriate use of ICT badly influenced ethical values. Therefore, it can be said that everything is known, but it has become useless in practical life.

Table 3
Level of Teachers' ICT Utilization in the New Normal in the area of Communication Platform

Communication Platform Items	**Mean**	**Interpretation**
As a teacher, I …		
1. use communication platforms (e.g., email, messaging apps) to provide updates and announcements to my students.	3.20	Moderate Level
2. utilize communication platforms to share essential resources and learning materials with my students.	3.27	Moderate Level
3. use communication platforms to facilitate discussions and interactions among students in and outside the classroom.	3.31	Moderate Level
4. encourage students to contact me through communication platforms to seek clarification or support.	3.33	Moderate Level
5. use communication platforms to collaborate with other teachers or educators for lesson planning and sharing best practices.	3.44	Moderate Level

6. provide timely feedback to students' questions or assignments through communication platforms.	3.24	Moderate Level
7. use communication platforms to conduct virtual meetings or webinars with my students.	2.98	Moderate Level
8. involve parents or guardians in their child's education through communication platforms.	3.13	Moderate Level
9. use communication platforms to share students' progress and academic performance with parents or guardians.	2.96	Moderate Level
10. utilize communication platforms to coordinate and organize extracurricular activities or school events.	2.87	Moderate Level
Overall Mean	**3.17**	**Moderate Level**

Table 3 depicts the Level of teachers' ICT utilization in the area of communication platforms. The respondents obtained an overall mean score of 3.17, interpreted as a moderate level. However, to examine further the items in the table, the teachers obtained the highest mean of 3.44 on item No. 5, stating that they use communication platforms to collaborate with other teachers or educators for lesson planning and sharing best practices, which was interpreted as having a moderate Level. On the other hand, the lowest mean score of 2.87 was on item No. 10, stating that communication platforms should be utilized to coordinate and organize extracurricular activities or school events, and it was interpreted as a moderate level.

The result implies that respondents rarely utilize communication platforms for organizing extracurricular activities, meetings, and other school events. This is because not all teachers have digital technologies and copies of software. Another obstacle is that some teachers have insufficient ICT knowledge and skills, making integrating ICT in instruction and online meetings and events challenging. In addition, the majority of the teachers need more specific training in the use of educational online platforms. Many must learn to administer and navigate an online classroom such as Zoom, Google Meet, etc. Hence, many of the teachers were hesitant to conduct synchronous classroom instruction. The result relates to that of Buda (2019), wherein the stumbling block in using ICT in schools is a lack of teachers' experience using the new technologies. Although teachers had access to computers, they still did not use them. The school provides teachers with little time to learn about ICT solutions and to practice new tricks. Another barrier is teachers' conservative views on teaching and new technologies and their lack of readiness to change.

Table 4
Level of Teachers' ICT Utilization in the New Normal in the area of Computer Equipment when grouped according to Age

Computer Equipment	**Age**			
	Younger		**Older**	
Items	**Mean**	**Interpretation**	**Mean**	**Interpretation**
As a teacher, I…				
1. regularly incorporate computer equipment in my classroom, such as laptops and projectors.	3.52	Great Level	3.58	Great Level
2. use educational software and applications to enhance student learning.	3.33	Moderate Level	3.33	Moderate Level
3. communicate with students through email or online platforms for educational purposes.	3.76	Great Level	3.63	Great Level
4. frequently update and maintain the computer equipment available for student use.	3.57	Great Level	3.54	Great Level
5. use interactive whiteboards or interactive displays for teaching.	3.43	Moderate Level	3.37	Moderate Level
6. encourage students to use digital resources and websites for research and learning.	3.29	Moderate Level	3.63	Great Level
7. provide students with electronic materials (e.g., eBooks, online articles) to supplement traditional textbooks.	3.29	Moderate Level	3.08	Moderate Level
8. use computer-based assessments or quizzes to evaluate student performance.	3.29	Moderate Level	3.42	Moderate Level
9. facilitate online discussions or forums for collaborative learning.	3.24	Moderate Level	3.33	Moderate Level
10. use multimedia presentations (e.g., videos, animations) to support my lessons.	3.14	Moderate Level	3.00	Moderate Level
Overall Mean	**3.39**	**Moderate Level**	**3.39**	**Moderate Level**

Table 4 reveals the data on teachers' ICT utilization in the new normal area of computer equipment when grouped according to age. Younger and older respondents obtained an identical overall mean of 3.39, interpreted as a moderate level. However, in a deeper look at each item, younger teachers obtained the highest mean of 3.76 from item No. 3, stating to communicate with students through email or online platforms for educational purposes and interpreted as a great Level, while the lowest rating of 3.01 was from item No. 10, stating to use multimedia presentations (e.g., videos, animations) to support my lessons and interpreted as a moderate Level.

In the same manner, older teachers obtained the highest mean of 3.63 on item No. 3, stating to communicate with students through email or online platforms for educational purposes, interpreted as a great Level, while the lowest rating of 3.00 was on item No. 10, stating to use multimedia presentations (e.g., videos, animations) to support my lessons, interpreted as a moderate Level. The result implies that younger and older respondents must learn to use multimedia presentations to support their lessons. The challenges for teachers in multimedia presentations were inappropriate classrooms because of a lack of ICT equipment to be used by teachers and learners. In addition, some teachers need more efficiency in multimedia content development.

The result relates to Azad (2024), who disclosed that teachers face several challenges in using multimedia in the classroom. The significant difficulties are inappropriate classrooms, a lack of efficiency of teachers in multimedia content development, a lack of proper steps from authorities, and a large number of students in classrooms. Both teachers and students acknowledge that utilizing multimedia in teaching and learning is the most effective approach to fostering long-lasting connections within classroom settings.

Table 5
Level of Teachers' ICT Utilization in the New Normal in Software Applications when grouped according to Age.

Software Application Items	Age Younger Mean	Interpretation	Older Mean	Interpretation
As a teacher, I …				
1. use software applications to create interactive and engaging learning materials for my students.	3.29	Moderate Level	3.63	Great Level
2. incorporate educational software applications into my lessons to enhance student understanding of concepts.	3.19	Moderate Level	3.54	Great Level
3. communicate with students through software applications for educational purposes.	3.10	Moderate Level	3.25	Moderate Level
4. regularly update and explore new software applications relevant to my subject area.	3.14	Moderate Level	3.25	Moderate Level
5. use software applications to track and analyze student performance and progress.	3.24	Moderate Level	3.08	Moderate Level
6. encourage students to use educational software applications for self-directed learning and practice.	3.29	Moderate Level	3.04	Moderate Level
7. provide access to software applications for students in and outside the classroom.	3.29	Moderate Level	2.75	Moderate Level
8. use software applications to design and administer assessments or quizzes.	3.38	Moderate Level	3.46	Moderate Level
9. facilitate online discussions or group activities using software applications.	3.33	Moderate Level	3.29	Moderate Level
10. use multimedia presentations created with software applications to deliver content effectively.	3.37	Moderate Level	3.37	Moderate Level
Overall Mean	**3.26**	**Moderate Level**	**3.27**	**Moderate Level**

Table 5 uncovers the data on teachers' ICT utilization in software applications when grouped according to age. Younger respondents obtained an overall mean of 3.26, interpreted as a moderate Level, while older respondents obtained an overall mean of 3.27, interpreted as a moderate Level. However, scrutinizing the table, it can be noticed that item No. 1 has a big difference in mean scores: 3.29, or moderate Level, only for the younger group, while 3.63, or great Level, for the older group of respondents. This uses software applications to create interactive and engaging learning materials for my students.

The results indicate that younger respondents needed to be more competent in using software applications to create interactive learning materials for students. Most novice teachers need more technical ability to use software applications to create digital learning resources. The problem of teacher difficulties in developing digital learning resources needs to be known, along with the causes, so that it can be seen how the schools can make efforts to solve these problems. The result relates to that of Wahyuningsih et al. (2024), who revealed three main problems that teachers face in developing interactive learning resources: 1) the technical ability to use tools and devices to create

digital learning resources; 2) the strategy of organizing learning materials to be applied to learning resources; and 3) the lack of skills in managing learning materials to be applied to digital learning resources. Based on these findings, it is recommended that teachers collaborate with educational technologists who are masters of learning resource development.

Table 6
Level of Teachers' ICT Utilization in the New Normal in the area of Communication Platforms when grouped according to Age

Communication Platform	Age Younger		Older	
Items	**Mean**	**Interpretation**	**Mean**	**Interpretation**
As a teacher, I …				
1. use communication platforms (e.g., email, messaging apps) to provide updates and announcements to my students.	3.33	Moderate Level	3.08	Moderate Level
2. utilize communication platforms to share essential resources and learning materials with my students.	3.38	Moderate Level	3.17	Moderate Level
3. use communication platforms to facilitate discussions and interactions among students in and outside the classroom.	3.38	Moderate Level	3.25	Moderate Level
4. encourage students to contact me through communication platforms to seek clarification or support.	3.29	Moderate Level	3.38	Moderate Level
5. use communication platforms to collaborate with other teachers or educators for lesson planning and sharing best practices.	3.43	Moderate Level	3.46	Moderate Level
6. provide timely feedback to students' questions or assignments through communication platforms.	3.33	Moderate Level	3.17	Moderate Level
7. use communication platforms to conduct virtual meetings or webinars with my students.	3.00	Moderate Level	2.96	Moderate Level
8. involve parents or guardians in their child's education through communication platforms.	3.05	Moderate Level	3.21	Moderate Level
9. use communication platforms to share students' progress and academic performance with parents or guardians.	2.81	Moderate Level	3.08	Moderate Level
10. utilize communication platforms to coordinate and organize extracurricular activities or school events.	2.95	Moderate Level	2.79	Moderate Level
Overall Mean	**3.20**	**Moderate Level**	**3.15**	**Moderate Level**

Table 6 discloses the data on teachers' ICT utilization in communication platforms when grouped according to age. Younger respondents obtained an overall mean of 3.20, which is a moderate level. In comparison, older respondents obtained an overall mean of 3.15, interpreted as a moderate level. To deepen the investigation, younger teachers obtained the highest mean of 3.43 on item No. 5, stating that they use communication platforms to collaborate with other teachers or educators for lesson planning and sharing best practices, and interpreted as a moderate Level, while the lowest rating of 2.81 was on item No. 9, stating that they use communication platforms to share students' progress and academic performance with parents or guardians, and interpreted as a moderate Level.

Older teachers obtained the highest mean of 3.49 on item No. 5, stating the use of communication platforms to collaborate with other teachers or educators for lesson planning and sharing best practices, and interpreted as a moderate Level, while the lowest rating of 2.79 was on item No. 10, stating to utilize communication platforms to coordinate and organize extracurricular activities or school events, and interpreted as a moderate Level.

The result implies that younger respondents were less active than older respondents in using communication platforms to share students' progress and performance with their parents. Most younger respondents hesitate to use communication platforms; instead, they prefer face-to-face interaction with their parents. In addition, not all parents have gadgets and internet access during online interactions. On the other hand, older respondents rarely use communication platforms to organize the school's extracurricular activities and events. The result relates to Merc (2015), who found that the teachers lacked the skills to use technology tools effectively in their classrooms. Due to a lack of technological expertise, these teachers cannot incorporate modern tools into their lessons or communicate with parents.

Table 7
Level of Teachers' ICT Utilization in the New Normal in the area of Computer Equipment when grouped according to Highest Educational Attainment

Computer Equipment Items	Highest Educational Attainment: Lower Mean	Interpretation	Higher Mean	Interpretation
As a teacher, I…				
1. regularly incorporate computer equipment in my classroom, such as laptops and projectors.	3.44	Moderate Level	3.70	Great Level
2. use educational software and applications to enhance student learning.	3.24	Moderate Level	3.45	Moderate Level
3. communicate with students through email or online platforms for educational purposes.	3.40	Moderate Level	4.05	Great Level
4. frequently update and maintain the computer equipment available for student use.	3.44	Moderate Level	3.70	Great Level
5. use interactive whiteboards or interactive displays for teaching.	3.32	Moderate Level	3.50	Great Level
6. encourage students to use digital resources and websites for research and learning.	3.60	Great Level	3.30	Moderate Level
7. provide students with electronic materials (e.g., eBooks, online articles) to supplement traditional textbooks.	3.16	Moderate Level	3.20	Moderate Level
8. use computer-based assessments or quizzes to evaluate student performance.	3.32	Moderate Level	3.40	Moderate Level
9. facilitate online discussions or forums for collaborative learning.	3.44	Moderate Level	3.10	Moderate Level
10. use multimedia presentations (e.g., videos, animations) to support my lessons.	3.28	Moderate Level	2.80	Moderate Level
Overall Mean	**3.36**	**Moderate Level**	**3.42**	**Moderate Level**

Table 7 divulges the data on teachers' ICT utilization in the new normal area of computer equipment when grouped according to highest educational attainment. Respondents with lower educational attainment obtained an overall mean of 3.36, interpreted as moderate. At the same time, respondents with higher educational attainment obtained an overall mean of 3.42, interpreted as a moderate level.

Evaluating the table carefully, it can be noticed that item No. 3 has a big variance in mean scores: 3.40, or moderate Level, only for respondents with lower educational attainment, while 4.05, or great Level, for respondents with higher educational attainment. This is about communicating with the students through email or online platforms for educational purposes. The result implies that respondents with higher educational attainment were more competent than those with lower educational attainment in using computer equipment, primarily to communicate with students through emails or online platforms for academic purposes. This is because most teachers with higher educational attainment have higher ICT-related attitudes that they can learn ahead of respondents with lower educational attainment, particularly on the latest digital technology.

Table 8
Level of Teachers' ICT Utilization in the New Normal in Software Applications when grouped according to Highest Educational Attainment

Software Application Items	Highest Educational Attainment: Lower Mean	Interpretation	Higher Mean	Interpretation
As a teacher, I …				
1. use software applications to create interactive and engaging learning materials for my students.	3.48	Moderate Level	3.45	Moderate Level
2. incorporate educational software applications into my lessons to enhance student understanding of concepts.	3.28	Moderate Level	3.50	Great Level
3. communicate with students through software applications for educational purposes.	3.32	Moderate Level	3.00	Moderate Level
4. regularly update and explore new software applications relevant to my subject area.	3.28	Moderate Level	3.10	Moderate Level
5. use software applications to track and analyze student performance and progress.	3.08	Moderate Level	3.25	Moderate Level

6. encourage students to use educational software applications for self-directed learning and practice.	3.20	Moderate Level	3.10	Moderate Level
7. provide access to software applications for students in and outside the classroom.	3.16	Moderate Level	2.80	Moderate Level
8. use software applications to design and administer assessments or quizzes.	3.44	Moderate Level	3.40	Moderate Level
9. facilitate online discussions or group activities using software applications.	3.20	Moderate Level	3.45	Moderate Level
10. use multimedia presentations created with software applications to deliver content effectively.	3.40	Moderate Level	3.35	Moderate Level
Overall Mean	**3.28**	**Moderate Level**	**3.24**	**Moderate Level**

Table 8 reveals the data on teachers' ICT utilization in the new normal area of software application when grouped according to the highest educational attainment. Respondents with lower educational attainment obtained an overall mean of 3.28, interpreted as moderate. At the same time, respondents with higher educational attainment obtained an overall mean of 3.24, which is interpreted as a moderate level. Analyzing the table carefully, it can be noticed that item No. 4 has a big variance in mean scores: 3.28, or moderate level, only for respondents with lower educational attainment, while 3.50, or great Level, for respondents with higher educational attainment. This is to incorporate educational software applications into my lessons to enhance student understanding of concepts.

The result implies that respondents with higher educational attainment were more active in using software applications than respondents with lower educational attainment, particularly in integrating software applications into teaching and learning to enhance students' interest in understanding the concepts of the lessons. Most respondents with higher educational attainment believe technology will benefit their teaching and students' learning. The result relates to Dela Fuente (2020), who revealed that master's degree holders are more competent in ICT than bachelor's degree holders because master teachers have more ICT-related training and seminars, which helped enhance their basic ICT skills.

Table 9
Level of Teachers' ICT Utilization in the New Normal in the area of Communication Platform when grouped according to Highest Educational Attainment

Communication Platform	**Highest Educational Attainment**			
	Lower		**Higher**	
Items	**Mean**	**Interpretation**	**Mean**	**Interpretation**
As a teacher, I …				
1. use communication platforms (e.g., email, messaging apps) to provide updates and announcements to my students.	3.20	Moderate Level	3.20	Moderate Level
2. utilize communication platforms to share essential resources and learning materials with my students.	3.16	Moderate Level	3.40	Moderate Level
3. use communication platforms to facilitate discussions and interactions among students in and outside the classroom.	3.40	Moderate Level	3.20	Moderate Level
4. encourage students to contact me through communication platforms to seek clarification or support.	3.16	Moderate Level	3.55	Great Level
5. use communication platforms to collaborate with other teachers or educators for lesson planning and sharing best practices.	3.40	Moderate Level	3.50	Great Level
6. provide timely feedback to students' questions or assignments through communication platforms.	3.32	Moderate Level	3.15	Moderate Level
7. use communication platforms to conduct virtual meetings or webinars with my students.	2.92	Moderate Level	3.05	Moderate Level
8. involve parents or guardians in their child's education through communication platforms.	3.24	Moderate Level	3.00	Moderate Level
9. use communication platforms to share students' progress and academic performance with parents or guardians.	2.88	Moderate Level	3.05	Moderate Level

10. utilize communication platforms to coordinate and organize extracurricular activities or school events.	3.00	Moderate Level	2.70	Moderate Level
Overall Mean	**3.17**	**Moderate Level**	**3.18**	**Moderate Level**

Table 9 exposes the data on teachers' ICT utilization in the new normal area of communication platforms when grouped according to the highest educational attainment. Respondents with lower educational attainment obtained a mean of 3.17, interpreted as moderate. In contrast, respondents with higher educational attainment obtained an overall mean of 3.18, which is interpreted as a moderate level. Looking closely at each item's result, it can be noticed that it is in item no. 4 where the mean results differ greatly: 3.16, or a moderate Level, only for respondents with lower educational attainment, but 3.55, or a great Level, for the higher educational attainment group. This encourages students to contact me through communication platforms to seek clarification or support.

The result implies that respondents with higher educational attainment were more active than respondents with lower educational attainment in encouraging students to reach out to their teachers through communication platforms if they seek academic support. Respondents with lower educational attainment were uncertain about enabling learners to communicate with them through online platforms because not all learners have the gadgets and internet connection to do so. The result relates to Ramalingam et al. (2022), who conducted a survey and found that educators encountered several challenges in teaching, including finding the appropriate platform to teach this discipline, poor internet connectivity, and unfamiliarity with the technical tools. In a study by Tuazon (2019), the data showed that teachers with graduate or postgraduate studies could effectively utilize the equipment provided by the program. This suggests that the effectiveness of technology-related programs depends on adequate preparation and training for teachers, as well as personal experience in using technology.

Table 10
Level of Teachers' ICT Utilization in the New Normal in the area of Computer Equipment when grouped according to Length of Service

Computer Equipment	**Length of Service**			
	Shorter		**Longer**	
Items	**Mean**	**Interpretation**	**Mean**	**Interpretation**
As a teacher, I…				
1. regularly incorporate computer equipment in my classroom, such as laptops and projectors.	3.57	Great Level	3.54	Great Level
2. use educational software and applications to enhance student learning.	3.57	Great Level	3.12	Moderate Level
3. communicate with students through email or online platforms for educational purposes.	3.67	Great Level	3.71	Great Level
4. frequently update and maintain the computer equipment available for student use.	3.67	Great Level	3.46	Moderate Level
5. use interactive whiteboards or interactive displays for teaching.	3.71	Great Level	3.13	Moderate Level
6. encourage students to use digital resources and websites for research and learning.	3.52	Great Level	3.42	Moderate Level
7. provide students with electronic materials (e.g., eBooks, online articles) to supplement traditional textbooks.	3.14	Moderate Level	3.21	Moderate Level
8. use computer-based assessments or quizzes to evaluate student performance.	3.29	Moderate Level	3.42	Moderate Level
9. facilitate online discussions or forums for collaborative learning.	3.38	Moderate Level	3.21	Moderate Level
10. use multimedia presentations (e.g., videos, animations) to support my lessons.	3.19	Moderate Level	2.96	Moderate Level
Overall Mean	**3.47**	**Moderate Level**	**3.32**	**Moderate Level**

Table 10 presents teachers' ICT utilization in the new normal area of computer equipment when grouped according to length of service. Respondents with shorter years in the service obtained an overall mean of 3.47, which is interpreted as a moderate level. At the same time, respondents with longer years in the service gained an overall mean of 3.32, a moderate level. Looking closely at each item's result, it can be noticed that it is in item no. 2, where the interpretation varies to a great Level (3.57) for respondents with shorter years in the service and a moderate Level (3.12) for respondents with longer years in the service. This is based on using educational software and applications to enhance student learning.

The result implies that respondents with shorter years in service are much more competent in using educational software and applications in their teaching and learning. Respondents with longer years in the service have less knowledge of the existing software applications. They need enough time to learn this software and its applications since this is not their field of expertise. The finding aligns with that of Marcial and Fortich (2015). Their study revealed that the level of competence in ICT among teacher educators was fair, particularly in the proper use of various software and applications.

Table 11
Level of Teachers' ICT Utilization in the New Normal in Software Applications when grouped according to Length of Service

Software Application	**Length of Service**			
	Shorter		**Longer**	
Items	**Mean**	**Interpretation**	**Mean**	**Interpretation**
As a teacher, I …				
1. use software applications to create interactive and engaging learning materials for my students.	3.67	Great Level	3.29	Moderate Level
2. incorporate educational software applications into my lessons to enhance student understanding of concepts.	3.43	Moderate Level	3.33	Moderate Level
3. communicate with students through software applications for educational purposes.	3.33	Moderate Level	3.04	Moderate Level
4. regularly update and explore new software applications relevant to my subject area.	3.48	Moderate Level	2.96	Moderate Level
5. use software applications to track and analyze student performance and progress.	3.43	Moderate Level	2.92	Moderate Level
6. encourage students to use educational software applications for self-directed learning and practice.	3.38	Moderate Level	2.96	Moderate Level
7. provide access to software applications for students in and outside the classroom.	3.38	Moderate Level	2.67	Moderate Level
8. use software applications to design and administer assessments or quizzes.	3.48	Moderate Level	3.38	Moderate Level
9. facilitate online discussions or group activities using software applications.	3.24	Moderate Level	3.38	Moderate Level
10. use multimedia presentations created with software applications to deliver content effectively.	3.48	Moderate Level	3.29	Moderate Level
Overall Mean	**3.43**	**Moderate Level**	**3.12**	**Moderate Level**

Table 11 shows teachers' ICT utilization in software applications when grouped according to length of service. Respondents with shorter years in the service obtained an overall mean of 3.43, which is interpreted as a moderate level. At the same time, respondents with longer years in the service gained an overall mean of 3.12, a moderate level. However, looking attentively at each item's results, there is a noticeable huge difference in the mean results: 3.67, or great Level, for respondents with shorter years in the service, while 3.29, or moderate Level, only for respondents with longer years in the service. This is to use software applications to create interactive and engaging learning materials for my students.

This implies that teachers with fewer years in the service were much more capable than teachers with longer years in using software applications and creating interactive learning materials. Most of the teachers who are new to the service are more knowledgeable about the latest software applications than retireable teachers. The finding supports the study conducted by Rizkiani (2022), which found that the competence of pre-service teachers implementing ICT is at an excellent level using the right software and applications for the teaching and learning process.

Table 12
Level of Teachers' ICT Utilization in the New Normal in the area of Communication Platform when grouped according to Length of Service

Communication Platform	**Length of Service**			
	Shorter		**Longer**	
Items	**Mean**	**Interpretation**	**Mean**	**Interpretation**
As a teacher, I …				
1. use communication platforms (e.g., email, messaging apps) to provide updates and announcements to my students.	3.38	Moderate Level	3.04	Moderate Level

2. utilize communication platforms to share essential resources and learning materials with my students.	3.38	Moderate Level	3.17	Moderate Level
3. use communication platforms to facilitate discussions and interactions among students in and outside the classroom.	3.43	Moderate Level	3.21	Moderate Level
4. encourage students to contact me through communication platforms to seek clarification or support.	3.19	Moderate Level	3.46	Moderate Level
5. use communication platforms to collaborate with other teachers or educators for lesson planning and sharing best practices.	3.48	Moderate Level	3.42	Moderate Level
6. provide timely feedback to students' questions or assignments through communication platforms.	3.43	Moderate Level	3.08	Moderate Level
7. use communication platforms to conduct virtual meetings or webinars with my students.	3.05	Moderate Level	2.92	Moderate Level
8. involve parents or guardians in their child's education through communication platforms.	3.29	Moderate Level	3.00	Moderate Level
9. use communication platforms to share students' progress and academic performance with parents or guardians.	3.24	Moderate Level	2.71	Moderate Level
10. utilize communication platforms to coordinate and organize extracurricular activities or school events.	3.24	Moderate Level	2.54	Moderate Level
Overall Mean	**3.31**	**Moderate Level**	**3.05**	**Moderate Level**

Table 12 depicts the data on teachers' ICT utilization in communication platforms when grouped according to length of service. Respondents with shorter years in the service obtained an overall mean of 3.31, which is interpreted as a moderate level. On the other hand, respondents with longer years in the service gained an overall mean of 3.05, which is interpreted as a moderate level. Moreover, respondents with shorter years in the service obtained the highest mean of 3.48 from item No. 5, stating the use of communication platforms to collaborate with other teachers or educators for lesson planning and sharing best practices, and interpreted as a moderate Level, while the lowest rating of 3.05 was from item No. 7, stating the use of communication platforms to conduct virtual meetings or webinars with my students, and interpreted as a moderate Level.

Respondents with longer years in the service obtained the highest mean of 3.46 on item No. 4, stating to encourage students to reach out to me through communication platforms to seek clarification or support, and interpreted as a moderate Level, while the lowest rating of 2.54 was on item No. 10, stating to utilize communication platforms to coordinate and organize extracurricular activities or school events, and interpreted as a moderate Level. The result implies that respondents with shorter years in the service could have been more active in using communication platforms in virtual meetings with the students. In comparison, respondents with longer years in the service rarely utilized communication platforms in organizing school activities and events. The teachers need more peripherals, copies of software, and simultaneous internet access, which are the main obstacles to using communication platforms.

The finding relates to that of Buda (2019), who concluded that using digital technologies in schools requires a positive attitude, sufficient hardware and software, support, time, and training. None of these components can do the job independently; more are needed to perform teaching that meets the demands of the age. All these components greatly intensify the probability of integrating ICT into schoolwork efficiently. At the same time, all competent parties must acknowledge that the appropriate use of ICT assists work, but using it unfavorably can hinder teaching and learning processes.

Table 13
Differences in the Level of Teachers' ICT Utilization in the area of Computer Equipment when grouped and compared according to variables

Computer Equipment							
Variables	**Categories**	**N**	**Mean Rank**	**Mann Whitney U - test**	**Sig. Level**	***p*-value**	**Interpretation**
Age	Younger Older	21 24	23.24 22.79	247.00	0.05	0.909	Not Significant

Highest Educational Attainment	Lower Higher	25 20	22.68 23.40	242.00	0.855	Not Significant
Length of Service	Shorter Longer	21 24	24.19 21.96	227.00	0.569	Not Significant

As reflected in Table 13, for variable age, the computed U-test is 247.0 with a *p*-value of 0.909, which is greater than the 0.05 significance level and thus interpreted as not significant. Therefore, the hypothesis stating that there is no significant difference in the Level of teachers' ICT utilization in the area of computer equipment when grouped and compared according to age is accepted. On the variable with the highest educational attainment, the computed U-test is 242.0 with a *p*-value of 0.855, which is greater than the 0.05 level of significance and thus interpreted as not significant. Therefore, the hypothesis stating there is no significant difference in the Level of teachers' ICT utilization in the area of computer equipment when grouped and compared according to highest educational attainment is accepted.

Further, for the variable length of service, the computed U-test is 227.0 with a *p*-value of 0.569, which is greater than the 0.05 level and thus interpreted as not significant. This prompts the acceptance of the null hypothesis that there is no significant difference in the Level of teachers' ICT utilization in computer equipment when grouped and compared according to the length of service. This implies that the Level of teachers' ICT utilization in computer equipment, when grouped and compared according to age, highest educational attainment, and length of service, does not vary. Most of the respondents exhibited the same level of competence in the use of ICT equipment. The result is supported by Gelacio (2020), wherein the Level of utilization of ICT resources in equipment does not vary regardless of the teacher's age, civil status, highest educational attainment, or length of service.

Table 14
Differences in the Level of Teachers' ICT Utilization in the area of Software Application when grouped and compared according to variables

Software Application							
Variables	**Categories**	**N**	**Mean Rank**	**Mann Whitney U - test**	**Sig. Level**	***p*-value**	**Interpretation**
Age	Younger Older	21 24	23.12 22.90	249.50		0.955	Not Significant
Highest Educational Attainment	Lower Higher	25 20	23.32 22.60	242.00	0.05	0.855	Not Significant
Length of Service	Shorter Longer	21 24	25.48 20.83	200.00		0.236	Not Significant

As revealed in Table 14, for variable age, the computed U-test is 249.5 with a *p*-value of 0.955, which is greater than the 0.05 level of significance and thus interpreted as not significant. Therefore, the hypothesis that there is no significant difference in teachers' ICT utilization in software applications when grouped and compared according to age is accepted. On the highest educational attainment variable, the computed U-test is 2452.0 with a p-value of 0.855, which is greater than the 0.05 level and thus interpreted as insignificant. Therefore, the hypothesis that there is no significant difference in the Level of teachers' ICT utilization in software applications is accepted when grouped and compared according to highest educational attainment.

Further, for the variable length of service, the computed U-test is 200.0 with a *p*-value of 0.236, which is greater than the 0.05 level and thus interpreted as not significant. This prompts the acceptance of the null hypothesis that there is no significant difference in the Level of teachers' ICT utilization in software applications when grouped and compared according to the length of service. This implies that the Level of teachers' ICT utilization in software applications when the respondents are grouped and compared according to age, highest educational attainment, and length of service does not differ. This entails that the respondents make the same effort to use software applications for classroom teaching. The result is supported by Dela Fuente (2020), wherein age, gender, maximum educational achievement, and years in the service have little effect on teachers' ICT competency.

Table 15
Differences in the Level of Teachers' ICT Utilization in the area of Communication Platform when grouped and compared according to variables

Communication Platform							
Variables	**Categories**	**N**	**Mean Rank**	**Mann Whitney U - test**	**Sig. Level**	***p*-value**	**Interpretation**
Age	Younger	21	23.86	234.00		0.682	Not Significant
	Older	24	22.25				
Highest Educational Attainment	Lower	25	23.18	245.50	0.05	0.918	Not Significant
	Higher	20	22.78				
Length of Service	Shorter	21	24.98	210.50		0.345	Not Significant
	Longer	24	21.27				

As revealed in Table 15, for variable age, the computed U-test is 234.0 with a *p*-value of 0.682, which is greater than the 0.05 level of significance and thus interpreted as not significant. Therefore, the hypothesis that there is no significant difference in the Level of teachers' ICT utilization in communication platforms is accepted when grouped and compared according to age. On the variable with the highest educational attainment, the computed U-test is 245.50 with a *p*-value of 0.918, which is greater than the 0.05 level and thus interpreted as not significant. Therefore, the hypothesis stating there is no significant difference in the Level of teachers' ICT utilization in communication platforms when grouped and compared according to highest educational attainment is accepted.

Further, for the variable length of service, the computed U-test is 210.50 with a *p*-value of 0.345, which is greater than the 0.05 level and thus interpreted as not significant. This prompts the acceptance of the null hypothesis that there is no significant difference in the Level of teachers' ICT utilization in communication platforms when grouped and compared according to the length of service. The result implies that teachers' ICT utilization in communication platforms does not vary when grouped and compared according to age, highest educational attainment, and length of service. This shows that the teachers have the same attitude toward using communication platforms in their classroom teaching. The finding relates to that of Alba and Trani (2018). No statistically significant results were found in the Level to which teacher-respondents utilize ICT in their teaching and administrative tasks when grouped according to age, sex, educational attainment, and length of service.

Conclusions

The findings of this investigation shed light on the demographics of teachers and their utilization of Information and Communication Technology (ICT) in the context of the new normal. It was revealed that moderate levels of ICT utilization were observed across various domains, such as computer equipment, software applications, and communication platforms. While teachers demonstrated proficiency in certain areas, such as communication platforms, there remained hesitancy and reluctance in fully integrating ICT into instructional practices, particularly in utilizing multimedia presentations and providing students access to educational software applications. Challenges such as inadequate technical skills and limited access to technology resources were identified as barriers to more extensive ICT integration. However, the study also found that demographic variables such as age, educational attainment, and length of service did not significantly influence teachers' ICT competencies. This highlights the need for targeted interventions to address the identified challenges and enhance teachers' ICT skills, regardless of their demographic profile.

Recommendations

Based on the findings, the following recommendations are proposed to lessen further the level of teachers' ICT utilization in the new normal:

Tailored Professional Development: Develop and implement targeted professional development programs that enhance teachers' technical skills and confidence in utilizing ICT tools for instructional purposes. These programs should address the specific needs and challenges identified among educators.
Access to Technology Resources: Ensure equitable access to technology resources, including hardware, software, and internet connectivity, for all teachers. This may involve providing subsidies for purchasing equipment, facilitating access to educational software applications, and improving internet infrastructure in schools and communities.

Integration of ICT in Teacher Training Programs: Integrate ICT competencies into pre-service and in-service teacher training programs to equip educators with the necessary skills and knowledge to leverage technology in their teaching practices effectively. This should include hands-on training and opportunities for experiential learning.

Promotion of Collaborative Learning Communities: Foster collaborative learning communities where teachers can share best practices, resources, and strategies for integrating ICT into teaching and learning. This could involve establishing online forums, professional learning communities, and mentorship programs to facilitate peer support and collaboration.

Policy Support and Advocacy: Advocate for policies and initiatives prioritizing ICT integration in education and supporting teachers in adopting innovative teaching practices. This may include advocating for increased funding for technology infrastructure, incentivizing ICT integration in teacher evaluation frameworks, and promoting research and innovation in educational technology.

By implementing these recommendations, stakeholders can work towards fostering a more technologically proficient teaching workforce capable of effectively leveraging ICT to support teaching and learning in the new normal.

Acknowledgment

I extend my heartfelt gratitude to everyone who supported me in any way throughout the completion of this thesis. My sincerest appreciation goes to my adviser, Dr. Mario A. Dejito, for his invaluable guidance, insightful mentorship, and steadfast encouragement throughout the entirety of this study. Finally, I am deeply grateful to my family and friends for their unwavering love, support, and understanding during this academic journey. Their constant encouragement has been a source of strength and inspiration that sustained me every step of the way.

References

A. Bayocot, (2014). "Balancing the teaching activities in the classroom with crucial professional upgrading activities for teachers," PPSTA Country Report, The 30th ASEAN Council of Teachers Convention. Singapore, 2014.

A. U. UGBE AND J. I. AGIM (2014), Faculty of Education, Cross River University of Technology, Akamkpa Campus, Nigeria and Federal College of Education, Obudu, Cross River State, Nigeria. Influence of teachers' competence on students' academic performance in senior secondary school chemistry.

Albirini, (2015) Cultivation and Understanding of International Dimensions through Process Driven Educational Practices in Schools p.6.

Aranda, M., & Zamora, J. (2016). Using Differentiated Instruction in Improving the Academic Performance of Students in Filipino Language. Retrieved January15,2018fromhttp://www.nationalu.edu.ph/wpcontent/uploads/ 2016/08/JSTAR-4_Aranda.pdf.

Arnseth & Hatlevik, (2014) Making Sense of Epistemic Categories. Analyzing Students' Use of Categories of Progressive Inquiry in Computer Mediated Collaborative Activities. Journal of Computer Assisted Learning. 23(5).

Baba, E. I., Iwuoha, C. U., & Alhassan, D. A. (2022). UTILIZATION OF DIGITAL INSTRUCTIONAL TECHNOLOGIES FOR TEACHING OFFICE TECHNOLOGY AND MANAGEMENT STUDENTS IN THE NEW NORMAL IN POLYTECHNICS, IN NORTH-CENTRAL, NIGERIA. Nigerian Journal of Business Education (NIGJBED), 9(1), 40-52.

Briggs and Gutsman. (2014). Transformative learning theory and coaching: Application in practice. International Journal of Evidence Based Coaching and Mentoring. Special Issue, 8, June 2014, 39¬-52. http://ijebcm.brookes.ac.uk.

Catarina Andersson, June 2017. Umeå University. Learning and Instruction 49:92-102. The impact of formative assessment on student achievement: A study of the effects of changes to classroom practice after a comprehensive professional development programmed.

Catherine Garrison, Michael Ehringhaus, PhD. (2019). Formative and Summative Assessments in the Classroom - AMLE.

Edmond Njombe Lyonga, Ph.D. (2017). Risks Management Application in Helping the Poor Through MicrofinancingWalden University. WALDEN DISSERTATIONS AND DOCTORAL STUDIES.

Jim Scrivener. (2014). The Reading Matrix © 2014. Volume 14, Number 1, April 2014. Classroom Management Techniques. Cambridge University Press, Cambridge, UK (2012) Pages: 306.

Joy Don Baker PhD, (2015). RN-BC, CNOR, CNE, NEA-BC Artistry of Peer Review. Artistry of Peer Review - Baker - 2015 - AORN Journal – Wiley Online Library.

Kopp et al. (2017). Kopp, R.E., R.M. DeConto, D.A. Bader, C.C. Hay, R.M.Horton, S. Kulp, M. Oppenheimer, D. Pollard, and B.H. Strauss, 2017:Evolving understanding of Antarctic ice-sheet physics and ambiguity in probabilistic sea-level projections. Earth's Future, 5, no. 12, 1217-1233,

Lim, C.P. & Wang, L.B. (Eds.) (2016). Blended Learning for Quality Higher Education: Selected Case Studies on Implementation from Asia-Pacific. Paris, France: UNESCO.

LOICE J. TEYGONG B. Ed. Arts (Kampala International University). (2017). Influence of teachers' pedagogical competencies on pupils' academic performance inpublic primary schools inchepkorio ward, elegeyo-marakwetcountry,kenya.

Lomibao, L. S. (2016). Enhancing mathematics teachers' quality through Lesson Study. Springer Plus, 5(1), 1-13.

Ma. Leticia Jose C. Basilan (PhD). (2018). Asia Pacific Journal of Multidisciplinary Research, Vol. 6, No. 2, May 2018 Scantiness of Instructional Materials in Senior High School: Basis for a Proposed Digital Instructional Archive.

Naade, N. B., Alamina, J. I. and Okwelle, P. C. (2018). Effect of 7E's's Constructivist Approach on Students' Achievement in Electromagnetic Induction Topic in Senior Secondary School in Nigeria. Journal of Education, Society and Behavioral Science, 24(3), 1-9.

Olga Nessipbayeva. (2015). A Comparative Study of Teaching Style and Infrastructure of Learning of Higher Education in Austria and Kazakhstan, July 2015. Procedia - Social and Behavioral Sciences 197:1271-1277. DOI:10.1016/j.sbspro.2015.07.399. Project: Adult Education and Lifelong Learning.

Robles, (2015). An act enhancing the Philippine basic education system by strengthening its curriculum and increasing the number of years for basic education, appropriating funds therefor and for other purposes.

Volume 1, Issue 2, Summer 2015 Teaching and Learning with Technology: Effectiveness of ICT Integration in Schools Simin Ghavifekr* , Wan Athirah Wan Rosdy

Whitehurst. (2015). Getting Classroom Observations Right. Grover; Chingos, Matthew M.; Lindquist, Katharine. Education Next, v15 n1 p62-68 Win 2015.

Young, (2015) An introduction to educational technology