

Teachers' Utilization of ICT-Based Instructions

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Abstract:

A study by Tomaro and Mutiarin (2018) noted high ICT utilization in the Philippines, but also highlighted challenges such as inadequate software, hardware, and infrastructure. Some teachers also showed reluctance due to limited ICT knowledge or preference for traditional methods. To assess ICT-based instruction use among teachers in a district of Central Philippines during School Year 2023–2024, a descriptive research design and a self-made questionnaire were employed, involving 171 teacher-respondents. Results showed that ICT utilization was to a great extent, especially in Curriculum and Assessment, use of basic ICT tools, and instructional application—indicating strong compliance with DepEd policies and a generally high level of ICT engagement. Although many teachers are trained, the depth of their technical skills may still fall short in everyday applications. The study also found a significant difference in ICT utilization based on teachers' highest educational attainment, suggesting that academic qualifications influence effective ICT use in classroom instruction. Findings served as a basis for a capability-building plan.

Keywords: Instruction method, ICT utilization, teachers

Introduction:

Nature of the Problem

The Department of Education released Order No. 016, series of 2023, to revise and improve its existing computerization program. This aligns with the state policy of establishing, supporting, and maintaining an adequate and integrated education framework that answers the needs of Filipino learners to become globally competitive.

The present state of ICT utilization in the Philippines is high, according to the study of Tomaro and Mutiarin (2018). However, the difficulties encountered in its implementation highlighted the inadequacies of software, hardware, and infrastructure. Furthermore, the non-compliance of some teachers stemmed from the fact that some have a lesser or zero background in ICT, while the rest prefer to continue teaching with the usual conventional method.

The impact of ICT on students' performance was proven strong by Ullah's study (2019). The study showed a significant relationship between ICT use and students' academic performance. Also, students' addiction to ICT significantly influences the comparative measurement in identifying the students' academic performance. In this digital era, information and communications technology (ICT) in education is gaining momentum as school systems increase their usage and double their investments. Proven to be effective in academic use, the rapid development of ICT has induced the rise of new generation of learners with a very unique way of receiving, processing and exchanges of information (Wang, 2023).

The emphasis on implementing ICT-based instruction is followed in the division where the study will be conducted. However, there are circumstances where specific difficulties along the way proved otherwise. Some of the present difficulties include the lack of computers for students' use, the lack of internet connection in some schools, the lack of maintenance for ICT gadgets, and damaged IT rooms, among others. This study aims to help determine teachers' utilization of ICT and relate it to students' performance.

Current State of Knowledge

The integration of ICT in education has steadily advanced across the globe, with early adopters like the U.S. demonstrating how prior exposure to technology in traditional classrooms helped teachers transition more smoothly to virtual instruction during the COVID-19 pandemic (National Center for Education Statistics, 2020). Yet, while some

countries lead in daily ICT use, others, like Indonesia, continue to struggle with technological disparities, particularly in remote areas (Bastin, 2019). Despite these limitations, tools such as educational software and multimedia have enhanced engagement and learning effectiveness (Essential Skills, 2020; Denby, 2018), and have paved the way for more flexible and accessible forms of instruction through online education (Techrow, 2024; Josep, 2022). This global shift has emphasized the value of independent learning, time management, and reduced educational costs (McKinley, 2022), though challenges such as high internet costs in countries like Indonesia limit the full adoption of e-learning (Hastungkara, 2020).

In response to these trends, governments and educational systems have ramped up investments in digital infrastructure and policy reforms to support ICT integration in K-12 education, recognizing the central role of teachers' perceptions and readiness in the success of these initiatives (Dogan, 2021). In the Philippines, the launch of DepEd Commons illustrated a national effort to bridge learning gaps during the pandemic and enhance digital literacy among educators and students (Baterna et al., 2020; DepEd Memoire, 2020). However, limitations in the platform's design, such as restricted content uploads and slow approval processes, along with ongoing issues in infrastructure, internet access, and economic barriers, highlight the complexity of equitable digital education in developing contexts (USAID, 2022; Bai, 2021; Barrot et al., 2021).

Further supporting this, research consistently shows that teachers' technological competence and access to professional development significantly impact how effectively they use digital tools in teaching (Dogan, 2021). Multimedia tools are widely acknowledged as beneficial, yet often remain unavailable in many schools (Shakil, 2020). Studies in other countries, such as India and Malaysia, reinforce that successful ICT integration hinges on both teacher training and supportive infrastructure, with collaborative platforms like social media enhancing peer interaction and academic outcomes (Ansari, 2020; Ghavifekr, 2015).

Building on this, recent research underscores the importance of learner-centered factors—like autonomy, collaboration, and satisfaction—in the effectiveness of online learning, linking established educational theories to modern digital practices (Abuhassna, 2020). Similar findings from Oman and Malaysia point to both high-quality e-learning experiences and persistent challenges, including technological access and learner motivation, stressing the need for continued adaptability among educators and institutions (Abdulsattar, 2021; Basar, 2021). Meanwhile, data from the UK highlights the efficiency and growing popularity of online platforms, driven by improved retention rates and a booming edtech market (Oxford Learning College, 2021). Collectively, these findings affirm that while global progress in digital education is evident, bridging technological, economic, and pedagogical gaps remains essential for sustainable, inclusive, and effective learning systems.

Theoretical Underpinnings

This study is grounded in the Theory of Open Development by Smith, Elder, and Emdon (2008), which emphasizes the role of "openness" in driving positive change through information-networked initiatives. The theory emerged from observing how openness influences various aspects of ICT programming, including policy, development, and IT systems. It highlights the importance of open government, open content, open source, open licensing, and open participation, all rooted in early Internet principles of open standards and a culture of sharing. These principles have inspired innovations across sectors such as government, research, education, and business, fostering more accessible, modifiable information and broader collaboration.

The theory underscores the value of collaboration across open boundaries via the internet, forming the foundation of modern ICT. Its relevance to this study lies in advocating equal opportunities for all participants—teachers and students alike—to actively engage in improving the teaching-learning process. By promoting openness and shared participation, the theory supports the idea that inclusive, networked collaboration can enhance educational outcomes through ICT-based instruction.

Objectives

This study aimed to determine the extent of teachers' utilization of ICT-based instructions in one of the districts of a medium-sized division in Central Philippines for the School Year 2023-2024. Specifically, this study sought to answer the following: 1) the extent of teachers' utilization of ICT-based instructions in the area of Curriculum and Assessment, Basic ICT tools (Software/hardware), Utilization of ICT in instruction; 2) the significant difference in the extent of teachers' utilization of ICT-based instructions 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

This study employed a descriptive research design to assess the extent of teachers' use of ICT-based instruction in a district within a medium-sized division in Central Philippines for the School Year 2023–2024. As defined by Calmorin (2016), the descriptive method focuses on current conditions to uncover new truths, whether in the form of increased knowledge, generalizations, or insights into specific factors. This approach was suitable for the study, as it aimed to observe and describe existing practices, relationships, opinions, and trends without manipulating variables, thereby providing an accurate portrayal of the current educational context.

Respondents

The study's respondents are the 171 sampled teachers from the total population of 307 in 7 public elementary schools within one of the districts of a medium-sized division in Central Philippines. Since the number of respondents is large, a stratified random sampling technique was used; the Cochran formula was used to find the sample size. To get the percentage, the respondents from each section were divided by the total number of respondents and multiplied by the sample size. The researcher randomly selected the respondents from each section using the lottery technique.

Instruments

This study employed a self-made questionnaire to assess the extent of teachers' use of ICT-based instruction, consisting of two parts: the first gathered socio-demographic data (age, educational attainment, income, and ICT training), and the second featured 30 items across three areas rated on a five-point Likert scale. The instrument's validity—defined as the degree to which the test accurately measures the intended concept—was established through face and content validation by three experts in educational management, all holding doctoral degrees and working within the same school division; the questionnaire achieved a validation score of 4.89, interpreted as "excellent." Reliability, which measures the internal consistency and stability of the instrument, was determined via a pilot test involving 30 non-participant teachers and analyzed using Cronbach's Alpha, yielding a reliability coefficient of 0.955, also interpreted as "excellent," confirming the instrument's high validity and reliability for data collection.

Data Gathering Procedure

There was a letter sent to the Schools Division Superintendent (SDS) informing her about this study, its purpose, and general coverage, and at the same time, seeking approval to conduct the study with the assurance that it would be done outside of school hours so as not to distract school routines.

After securing the approval of the SDS of this request, a letter addressed to the school heads was distributed alongside a photocopy of the approved letter from the SDS. The data gathering instrument was administered during lunchtime and after school hours, and the instruments were retrieved 2-3 days after their distribution.

The raw data was collected and tallied into a spreadsheet for further treatment. The said data was converted into numerical code guided by a coding manual. This allowed faster computer processing, statistical derivations, and tabular presentation. The encoded data was processed using the Statistical Package for Social Sciences (SPSS).

Data Analysis and Statistical Treatment

Objective No. 1, the descriptive analytical scheme and mean was used to determine the extent of teachers' utilization of ICT-based instruction in the areas of Curriculum and Assessment, Basic ICT tools (Software/hardware), and Utilization of ICT in instruction.

Objective No. 2, the comparative analytical scheme and Mann-Whitney U Test was used to determine if there is a significant difference in the extent of teachers' utilization of ICT-based instructions when grouped and compared according to the variables.

Ethical Considerations

Ethical considerations in research are principles that guide the research designs and practices. These principles include voluntary participation, informed consent, anonymity, confidentiality, potential for harm, and results communication. These factors guided the researcher's conduct of this study: Respected intellectual property, including patents, copyrights, and research methods to prevent plagiarism; Protected the confidentiality of communications, future publication considerations, and promoted social responsibility through proper results dissemination; avoided discrimination, complied with laws and institutional policies, and respected human and animal dignity and autonomy; and critically and carefully examined all work procedures, keeping good records, and transparently sharing needed data, results, and resources.

Results and Discussions:

This section presents the data, the analysis, and the interpretation of the same to meet the study's objectives as stated in the objectives. All of these were made possible by adhering to specific protocols that provided precise data and solutions for every objective.

Extent of Teachers' Utilization of ICT-based Instruction in the areas of Curriculum and Assessment, Basic ICT-tools (Software/hardware), and Utilization of ICT in Instruction

Table 1

Extent of Teachers' Utilization of ICT-based Instruction in the Area of Curriculum and Assessment

Items As a teacher, I ...	Mean	Interpretation
1. incorporate a variety of digital resources to enhance teaching.	3.59	Great Extent
2. design assessments that leverage technology to evaluate students' understanding and progress.	3.25	Moderate Extent
3. use flipped classroom model to allow class time to be focused on application and discussion in topics that maximizes the potential of ICT.	3.96	Great
4. utilize collaborative tools to facilitate group projects and real-time collaboration among students in lessons.	3.55	Great
5. teach digital literacy skills, ensuring that students can navigate and use digital tools effectively and responsibly.	4.02	Great
6. use various platforms to encourage students to maximize learning in different ways.	3.75	Great
7. educate students about ethical behavior, and responsible use of technology especially with their assessments.	3.94	Great
8. evaluate students' capacity to utilize and navigate themselves with ICT independently to maximize learning.	3.92	Great
9. actively participate in professional learning networks and sharing new ideas with my students.	3.74	Great
10. assess the level of student's engagement in technology-integrated lessons	3.59	Great
Mean	3.73	Great Extent

Table 1 reveals that teachers' use of ICT-based instruction in curriculum and assessment was on "Great Extent" with a mean score of 3.73. This means that ICT utilization is being adhered to by most teachers in teaching lessons and in providing student learning assessment. Item No. 5 states, "As a teacher, I teach digital literacy skills, ensuring that students can navigate and use digital tools effectively and responsibly," got the highest mean score of 4.02, interpreted as "Great Extent". In contrast, Item No. 2, which states, "As a teacher, I design assessments that leverage technology to evaluate students' understanding and progress," got the lowest mean score of 3.25, interpreted as "moderate extent".

This reveals the limitation of some teachers in using available ICT tools to help design assessments and the delivery of lessons so that students' outcomes are correctly reflected. This limitation could be due to a lack of teachers' training, a "too technical" issue to handle, or issues accessing useful websites to help them create useful assessment programs.

The result was parallel to the study of Montero (2021), who conducted a study on teachers' utilization of ICT-Based Learning resources about learners' academic performance. The result of the study showed that the Extent of Teachers' Utilization of ICT-Based Learning in the areas of Productivity Application Software, Facilities and Equipment, and Internet and Network Application Resources was all at a great extent. In the area of productivity application software, the study showed that some teachers lack mastery in using Microsoft Excel. In terms of internet and network application resources, the respondents indicated that there was an issue accessing learning resource websites.

Table 2

Extent of teachers' Utilization of ICT-based Instruction in the Area of Basic ICT-Tools (Software/Hardware)

Items As a teacher, I ...	Mean	Interpretation
1. adapt various technology devices, whenever available, to enhance student learning.	4.27	Great
2. teach students basic computer parts and its purpose.	3.80	Great
3. adapt various technology devices to reach students who may not have access to specific devices.	3.95	Great
4. share my knowledge on various hardware with students.	3.57	Great
5. utilize commonly-used apps such as messenger, whatsapp or telegram for	3.83	Great

class group chat.		
6. source video clips or full videos in Youtube relative to our class subject matter.	3.74	Great
7. guide students on how to safeguard their identities online.	3.27	Moderate
8. create and utilize virtual classrooms once in a while.	3.85	Great
9. introduce my students to various educational apps that are useful and safe - example, Dropbox, etc.	3.70	Great
10. introduce my students to the use of email system.	3.70	Great
Mean	3.77	Great

Table 2 shows that teachers' utilization of ICT-based instructions in terms of basic tools (software and hardware) is on "a great extent" with a mean score of 3.77. This implies that teachers generally comply with their mandate to use basic productivity tools in delivering their lessons, or in preparing/submitting their deliverables and other reports.

Item No. 1 which states that "As a teacher, I adapt various technology devices, whenever available, to enhance student learning" got the highest mean score of 4.27, interpreted as "great extent" while Item No. 7 which states that "As a teacher, I guide students on how to safeguard their identities online" got the lowest mean score of 3.27, interpreted as "moderate extent".

This implies that teachers may have limitations in higher technical ICT operations, such as online security or protecting students' identities while surfing online. Perhaps not all, but most teachers may have difficulty helping their students with online security.

Alongside this study result, Ghavifekr (2015) investigated the effectiveness of ICT integration in schools in Malaysia. Integration of Information, Communication, and Technology (ICT) will assist teachers in meeting the global requirement to replace traditional teaching methods with technology-based teaching and learning tools and facilities. In Malaysia, ICT is considered one of the main elements that transform the country for future development. The results indicate that ICT integration is highly effective for teachers and students. Findings suggest that teachers' well-equipped preparation with ICT tools and facilities is one of the main factors in the success of technology-based teaching and learning. It was also found that professional development training programs for teachers played a key role in enhancing the quality of education for students. Future studies need to consider other aspects of ICT integration, especially from a management point of view, regarding strategic planning and policy making.

Table 3
Extent of Teachers' Utilization of ICT-based instruction in the Area of Utilization of ICT in Instruction

Items	Mean	Interpretation
As a teacher, I ...		
1. use digital simulations the class.	3.40	Moderate
2. encourage students to create their assignments and submit the same online.	3.98	Great
3. utilize a variety of software and applications and engage students to use the same creatively.	3.71	Great
4. incorporate project-based learning.	3.32	Moderate
5. guide students in creating simple multi-media contents.	3.91	Great
6. utilize online classrooms whenever needed.	3.43	Moderate
7. provide online group projects to encourage collaborative digital works.	3.90	Great
8. encourage students to utilize e-books for some of their assignments in reading.	3.78	Great
9. utilize video clips from Youtube and specific sites to enhance learning absorption.	4.04	Great
10. use powerpoint and other multi-media applications in teaching.	3.56	Great
Mean	3.70	Great

Table 3 shows the extent of teachers' utilization of ICT-based instructions in terms of direct classroom instruction, with a mean score of 3.70. Most teachers know the need to integrate available tools and platforms in delivering their lesson content.

Item No. 9 states, "As a teacher, I utilize video clips from YouTube and specific sites to enhance learning absorption," got the highest mean score of 4.02, interpreted as "great extent". In contrast, Item No. 4, which states that "As a teacher, I incorporate project-based learning," got the lowest mean score of 3.32, interpreted as "moderate extent". This means that on some occasions, some teachers do not engage in a teaching method where students gain knowledge and skills by working on engaging, real-world, and challenging problems.

Abuhassna (2020) researched to create a new framework for utilizing online learning platforms to enhance students' academic performance and overall satisfaction. The study involved 243 higher education students who were actively using such platforms. Results indicated that students' backgrounds, prior experience, collaboration, interaction, and autonomy significantly contributed to their satisfaction with online learning. Furthermore, cognitive processes such as applying, remembering, understanding, and analyzing, along with satisfaction, were positively associated with academic achievement. These findings strongly support the integrated application of Transactional Distance Theory and Bloom's Taxonomy, suggesting that online learning platforms can be effectively structured to support student success. This model can serve as a valuable guide for policymakers and academic leaders in planning, assessing, and implementing online education strategies in universities and colleges.

Comparative Analysis in the Extent of Teachers' Utilization of ICT-based instruction when Grouped and Compared According to Aforementioned Variables

Table 4

Difference in the Extent of teachers' Utilization of ICT-based instruction in the area of curriculum and instruction When Grouped and Compared According to the Aforementioned Variables

Variable	Category	N	Mean Rank	Mann-Whitney U	p-value	Sig. level	Interpretation
Age	Younger	76	85.22	3550.500	0.852		Not Significant
	Older	95	86.63				
Highest Educational Attainment	Lower	97	88.70	3327.500	0.412	0.05	Not Significant
	Higher	74	82.47				
Average Family Monthly Income	Lower	83	85.01	3570.000	0.799		Not Significant
	Higher	88	86.93				
Number of Trainings	Few	80	87.54	3517.000	0.702		Not Significant
	Many	91	84.65				

Table 4 shows no significant difference in the extent of teachers' utilization of ICT-based instruction when grouped and compared according to age, highest educational attainment, average family monthly income, and number of trainings. The p-values for all variables were 0.852, 0.412, 0.799, and 0.702; all values are greater than the significance level of 0.05, which means the null hypothesis is accepted.

This means that variables such as age, highest educational attainment, average family monthly income, and number of trainings do not affect the extent of teachers' utilization of ICT-based instruction. Furthermore, the respondents' experiences and views on using ICT in curriculum and instruction were practically the same or shared.

Dogan (2021) conducted a study to investigate teachers' skills to integrate technology in education to help explain instructional and application software use. The data was from 1335 K-12 teachers in the Technology Uses and Perceptions Survey (TUPS) study. Teachers were located in 40 different institutions across the state of Florida. According to the findings of this study, the most significant factor in teachers' instructional and application software use was perceived technology skills.

Therefore, professional development for teachers' perceived skills or technology competencies might increase teachers' instructional or application software use. Both confidence and comfort in using technology directly and positively affect instructional and application software. Also, the total effect of support from technology specialists for instructional software use is more than that of application software use. As evidenced by the models developed in this research, teachers' perceived technology skills for instructional and application software use directly and positively affected their beliefs on usefulness. Our effort to provide more emphasis on the combined effect of a collective set of factors to explain teacher use of technology leads us to address the gaps in the literature on technology use (i.e., the effect of demographic factors and technology availability).

Table 5

Difference in the Extent of teachers' Utilization of ICT-based instruction in the area of Basic ICT Tools (Software/Hardware) When Grouped and Compared According to the Aforementioned Variables

Variable	Category	N	Mean Rank	Mann-Whitney U	p-value	Sig. level	Interpretation
Age	Younger	76	77.73	2981.500	0.049		Significant
	Older	95	92.62				
Highest Educational Attainment	Lower	97	84.98	3490.500	0.757	0.05	Not Significant
	Higher	74	87.33				
Average Family Monthly Income	Lower	83	79.90	3145.500	0.114		Not Significant
	Higher	88	91.76				
Number of Trainings	Few	80	78.34	3027.000	0.056		Not Significant
	Many	91	92.74				

Table 5 shows no significant difference in teachers' utilization of ICT-based instruction regarding Basic ICT Tools (Software/Hardware) when grouped and compared according to highest educational attainment, average family monthly income, and number of trainings. The p-values for all variables were 0.757, 0.144, and 0.506; all values are greater than the significance level of 0.05, which means the null hypothesis is accepted. However, there is a significant difference when grouped according to age, with the p-value of 0.0049, which is less than the 0.05 significance level, which means the null hypothesis is rejected.

This means that variables such as the highest educational attainment, average family monthly income, and number of trainings do not affect the extent of teachers' utilization of ICT-based instruction in terms of Basic ICT Tools (Software/Hardware) when grouped and compared according to the aforementioned variables. Furthermore, the respondents' experiences and views on using ICT in curriculum and instruction were practically the same or shared.

It also implies that younger teachers are generally more proficient and confident in using basic ICT tools than older teachers because they grew up in a digital environment where computers, smartphones, and the internet are a normal part of daily life. This early exposure contributes to greater familiarity and ease with technology.

A local study by Camis (2024) sought to establish teachers' competence, utilization, and difficulties in ICT-based instruction. Two hundred forty-six (246) respondents from a medium-sized division answered the fully validated, self-made survey questionnaire. The study's results showed that teachers' competence and utilization were at a high level, while the difficulties were at a low level. The comparative analysis established the significant difference in the level of teachers' competence, the level of teachers' utilization, and the level of difficulties encountered by teachers.

Table 6

Difference in the Extent of Teachers' Utilization of ICT-based instruction in the area of Utilization of ICT in Instruction When Grouped and Compared According to the Aforementioned Variables

Variable	Category	N	Mean Rank	Mann-Whitney U	p-value	Sig. level	Interpretation
Age	Younger	76	88.22	3441.000	0.597		Not Significant
	Older	95	84.22				
Highest Educational Attainment	Lower	97	93.59	2853.000	0.021	0.05	Significant
	Higher	74	76.05				
Average Family Monthly Income	Lower	83	92.93	3076.500	0.073		Not Significant
	Higher	88	79.46				
Number of Trainings	Few	80	86.88	3570.000	0.827		Not Significant
	Many	91	85.23				

Table 6 shows that there is no significant difference in the extent of teachers' utilization of ICT-based instruction in terms of Utilization of ICT in Instruction when grouped and compared according to age, average family monthly income, and number of trainings. The p-values for all variables were 0.0597, 0.073, and 0.827. However, there is a

significant difference when grouped according to highest educational attainment, with the p-value of 0.0201, which is less than the 0.05 significance level, which means the null hypothesis is rejected.

This implies that the highest educational attainment of teachers affects the extent of teachers' utilization of ICT-based instruction in terms of Utilization of ICT in Instruction.

The study of Montero (2021) aimed to determine the extent of teachers' utilization of ICT-Based Learning resources about learners' academic performance in La Castellana District 1, Division of Negros Occidental for the School Year 2020-2021. The areas of the study included Productivity Application Software, Facilities and Equipment, and Internet and Network Application. The variables included are: age, highest educational attainment, and length of service. The respondents of this study are the 166 public elementary school teachers of La Castellana District 1, the same district where the study was conducted. The result of the study showed that the Extent of Teachers' Utilization of ICT-Based Learning in the areas of Productivity Application Software, Facilities and Equipment, and Internet and Network Application Resources was all at a great extent. In the area of productivity application software, the result of the study showed that some teachers lack mastery in using Microsoft Excel. Regarding Facilities and Equipment, the study showed respondents were concerned that limited supplies and resources were not properly managed. In terms of internet and network application resources, the respondents showed that there was an issue accessing learning resource websites. Furthermore, there was a significant difference in the extent of teachers' utilization of ICT-based learning in the area of facilities and equipment when grouped according to age and highest educational attainment. There was no significant relationship between the extent of teachers' utilization of ICT-based learning and the level of learners' academic performance.

Conclusion:

The study revealed that most respondents were middle-aged teachers without postgraduate degrees, belonging to higher income groups and with more ICT training. Teachers demonstrated a high level of ICT-based instruction utilization—particularly in Curriculum and Assessment, Basic ICT tools, and Instructional Use—and this remained consistent even when grouped by demographic variables. However, a significant difference was found in ICT utilization based on educational attainment, indicating that higher academic qualifications positively influence ICT integration in teaching. The study concludes that while teachers are generally compliant with DepEd's ICT directives and actively engaged in its use, there is a need for deeper technical training. Thus, it recommends annual, grade-level-specific ICT training focused on technical skills, online security workshops for designated focal persons per grade, and mandated integration of ICT-driven Project-Based Learning in lesson plans for intermediate learners, with regular monitoring to ensure implementation.

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