
Utilization of Educational Technologies and Teaching Performance of Basic Education Teachers

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Abstract — This study examined the utilization of educational technologies and the teaching performance of basic education teachers in the Sanchez Mira District, Division of Cagayan, during the School Year 2025–2026. Using a descriptive–correlational research design, data were collected from 176 teachers through a researcher-made questionnaire and their Individual Performance Commitment and Review Form (IPCRF) ratings. Findings revealed that teachers demonstrated a very high level of utilization of educational technologies across instructional delivery, assessment practices, classroom management, and communication and collaboration, with an overall mean of 3.68. In terms of teaching performance, the majority of teachers obtained Outstanding ratings, with a mean of 4.73, indicating a very high level of effectiveness in their professional duties. Furthermore, the study established a significant positive relationship between the utilization of educational technologies and teaching performance ($r = 0.611$, $p < 0.05$), suggesting that increased integration of digital tools enhances teachers' instructional effectiveness. These results highlight the importance of continuous technological integration and professional development in improving teaching practices. It is recommended that schools strengthen support systems, provide relevant training, and ensure access to technological resources to sustain high levels of teaching performance among educators.

Keywords: *educational technology, teaching performance, basic education teachers, ICT utilization, IPCRF, correlational study*

I. INTRODUCTION

The advancement of educational technologies has significantly transformed teaching and learning processes across the globe. In the context of basic education, the integration of digital tools such as learning management systems, multimedia resources, and interactive platforms has reshaped instructional delivery and classroom management. Educational technology, broadly defined as the use of digital resources to enhance teaching and learning, provides opportunities for teachers to create more engaging, student-centered, and flexible learning environments. As schools increasingly adopt these innovations, the role of teachers evolves from knowledge transmitters to facilitators of learning, highlighting the importance of examining how technology use relates to teaching performance.

Recent literature emphasizes that educational technologies contribute to improved instructional practices when effectively integrated into pedagogy. Akram et al. (2022) found that teachers generally perceive technology integration positively, noting that it enhances instructional effectiveness, promotes learner engagement, and supports interactive classroom environments. Their study further revealed that teachers who are equipped with adequate technological skills and resources are more capable of designing meaningful learning experiences that motivate students. However, the same study also identified barriers such as inadequate infrastructure, limited training, and insufficient institutional support, which may hinder the effective use of educational technologies in teaching.

Similarly, Minz et al. (2023) examined the influence of educational technology on teacher performance and found a significant positive relationship between the two variables. Their findings indicated that the use of digital tools not only enhances teachers' efficiency in delivering instruction but also fosters teaching innovation, which mediates overall teaching performance. This suggests that teachers who actively utilize educational technologies are more likely to adopt creative and adaptive instructional strategies, thereby improving their performance in the classroom. The study underscores the importance of continuous professional development and technological support to maximize the benefits of educational technology.

Despite these promising findings, the relationship between educational technology utilization and teaching performance remains complex and context-dependent. While some studies highlight improvements in teaching practices and student outcomes, others suggest that the effectiveness of technology integration largely depends on how it is implemented rather than the technology itself. Factors such as teachers' competencies, attitudes, access to resources, and institutional support play critical roles in determining whether technology enhances or hinders teaching performance. Moreover, the shift to technology-driven instruction, intensified by recent global disruptions in education, has exposed disparities in teachers' preparedness and access to digital tools.

In the Philippine basic education context, where efforts to modernize teaching practices continue, understanding the extent to which educational technologies influence teaching performance is particularly relevant. Teachers are expected to integrate technology in alignment with curriculum standards and 21st-century learning goals, yet challenges such as limited infrastructure, varying levels of digital literacy, and resource constraints persist. These conditions necessitate further empirical investigation to determine how educational technologies are being utilized and how they affect teaching performance among basic education teachers.

Hence, this study aimed to examine the utilization of educational technologies and their relationship to the teaching performance of basic education teachers. Specifically, it sought to determine the extent to which teachers use educational technologies in their instructional practices and how such utilization influences their overall teaching performance.

Literature Review

The integration of educational technologies has become a central focus in improving teaching practices in modern classrooms. Educational technology encompasses a wide range of digital tools, including learning management systems, multimedia resources, and online platforms, which support instruction and facilitate student engagement. According to Valverde-Berrocoso et al. (2022), the use of technology in education has been widely associated with enhanced instructional strategies and improved learning environments, although its effectiveness depends

largely on pedagogical implementation rather than the tools themselves. Similarly, Akram et al. (2022) emphasized that technology integration transforms traditional teaching into more interactive and student-centered practices, thereby influencing how teachers design and deliver lessons. These findings suggest that educational technology plays a crucial role in shaping teaching performance when used appropriately.

Teacher competence and preparedness in using educational technology are also significant factors influencing teaching effectiveness. Haarala-Muhonen et al. (2023) found that teachers who receive pedagogical training alongside ICT exposure demonstrate more effective teaching approaches and utilize digital tools more meaningfully in their instruction. In addition, Zakrzewski and Newton (2023) reported that teachers' confidence and comfort in using instructional technology improved through structured training, leading to better integration in classroom settings. These studies highlight that professional development is essential in ensuring that teachers can maximize the potential of educational technologies, thereby enhancing their teaching performance.

Moreover, educational technology has been linked to innovation in teaching practices, which contributes to improved teacher performance. Minz et al. (2025) demonstrated that educational technology significantly influences teacher performance, with teaching innovation serving as a key mediating factor. Teachers who effectively use digital tools are more likely to implement creative instructional strategies, adapt to diverse learner needs, and foster active learning environments. Similarly, Kalyani (2024) found that technology enhances collaboration, expands access to information, and supports flexible learning modalities, all of which contribute to improved teaching and learning processes. These findings reinforce the idea that technology not only supports instruction but also drives pedagogical innovation.

Despite its benefits, several challenges hinder the effective utilization of educational technologies among teachers. Akram et al. (2022) identified barriers such as inadequate infrastructure, limited access to reliable internet, and insufficient technical support, which may negatively affect technology integration in classrooms. Likewise, Amemasor et al. (2025) highlighted that the success of digital instructional integration depends on sustained professional development, institutional support, and access to resources, emphasizing that one-time training is

insufficient for long-term effectiveness. These constraints suggest that while technology has the potential to improve teaching performance, external factors significantly influence its successful implementation in educational settings.

In addition, recent literature indicates that the impact of educational technology on teaching performance is complex and context-dependent. Li et al. (2026) noted that ICT integration enhances efficiency and communication in educational systems but also presents challenges related to infrastructure and digital inequality. Furthermore, it was emphasized that the effectiveness of ICT integration varies across contexts, depending on teachers' skills, institutional readiness, and the availability of support systems. These studies imply that while educational technology holds promise in improving teaching performance, its outcomes are influenced by multiple interrelated factors.

Overall, the reviewed literature demonstrates that the utilization of educational technologies can significantly enhance teaching performance when supported by proper training, resources, and institutional policies. However, challenges such as a lack of infrastructure, insufficient professional development, and unequal access must be addressed to ensure effective integration. These insights provide a strong foundation for examining how educational technologies are utilized by basic education teachers and how such utilization influences their teaching performance.

Research Questions

The integration of educational technologies has become a fundamental component of contemporary teaching practices, particularly in basic education. While digital tools and platforms are widely promoted to enhance instructional delivery and learner engagement, the extent to which teachers effectively utilize these technologies remains varied. Moreover, the relationship between the utilization of educational technologies and teaching performance is not fully established, especially in specific educational contexts. This gap necessitates a deeper investigation into how technology use influences teachers' effectiveness in delivering instruction.

Specifically, this study sought to answer the following questions:

1. What is the extent of utilization of educational technologies among basic education teachers in terms of the following?
 - a. instructional delivery;
 - b. assessment practices;
 - c. classroom management; and
 - d. communication and collaboration
2. What is the teaching performance of teachers based on their Individual Performance Commitment and Review Form (IPCRF) ratings?
3. Is there a significant relationship between the utilization of educational technologies and the teaching performance of basic education teachers?

II. METHODOLOGY

Research Design

This study employed a descriptive–correlational research design to examine the relationship between the utilization of educational technologies and the teaching performance of basic education teachers. The descriptive component was used to systematically describe the extent to which teachers utilize educational technologies in terms of instructional delivery, assessment practices, classroom management, and communication and collaboration, as well as to determine their level of teaching performance based on their Individual Performance Commitment and Review Form (IPCRF) ratings. Meanwhile, the correlational aspect of the design was utilized to determine whether a significant relationship exists between the utilization of educational technologies and teaching performance. This design was deemed appropriate for the study as it allowed the researcher to analyze existing conditions and explore relationships among variables

without manipulating them, thereby providing a clear understanding of how educational technology use is associated with teachers' performance.

Participants of the Study

The participants of this study were composed of 176 basic education teachers from the Sanchez Mira District, Division of Cagayan, during the School Year 2025–2026. The respondents were selected through total enumeration, which means that all teachers in the identified population were included in the study. This approach was deemed appropriate to ensure comprehensive data collection and to avoid sampling bias, thereby providing a complete representation of teachers in the district. All participants are currently engaged in classroom instruction and are expected to utilize educational technologies in their teaching practices, making them suitable sources of data for examining the relationship between technology utilization and teaching performance as measured through their Individual Performance Commitment and Review Form (IPCRF) ratings.

Instrumentation

This study utilized a researcher-made questionnaire as the primary data-gathering instrument, which was designed based on the objectives of the study and relevant literature on educational technology utilization and teaching performance. The instrument consisted of items that measured the extent of utilization of educational technologies among basic education teachers in terms of instructional delivery, assessment practices, classroom management, and communication and collaboration, using a Likert scale format. Additionally, the questionnaire included a section for recording teachers' performance based on their Individual Performance Commitment and Review Form (IPCRF) ratings. To ensure the validity and reliability of the instrument, it was subjected to expert evaluation for content accuracy and clarity, followed by pilot testing with a group of teachers outside.

Analysis of Data

The data gathered in this study were analyzed using both descriptive and inferential statistical techniques. Descriptive statistics, specifically the mean, were used to determine the extent of utilization of educational technologies among teachers in terms of instructional delivery, assessment practices, classroom management, and communication and collaboration. In addition, the teaching performance of the respondents was described based on their Individual Performance Commitment and Review Form (IPCRF) ratings. To facilitate the interpretation of the computed mean values, the following scales were used:

Range	Utilization of Educational Technologies	Range	Teaching Performance
1.00 – 1.74	Very Low	Below 1.500	Poor
1.75 – 2.49	Low	2.499 – 1.500	Unsatisfactory
2.50 – 3.24	High	3.499 – 2.500	Satisfactory
3.25 – 4.00	Very High	4.499 – 3.500	Very Satisfactory
		5.000 – 4.500	Outstanding

Furthermore, the Pearson Correlation was employed as an inferential statistical tool to determine the presence, strength, and direction of the relationship between the utilization of educational technologies and teaching performance. This statistical method enabled the researcher to establish whether a significant relationship exists between the independent variable (utilization of educational technologies) and the dependent variable (teaching performance).

III. RESULTS AND DISCUSSION

The extent of utilization of educational technologies among basic education teachers in terms of the following dimensions

The findings reveal that teachers demonstrate a very high extent of utilization of educational technologies, as reflected in the overall mean of 3.68. Across the different dimensions, communication and collaboration (mean = 3.75) and instructional delivery (mean = 3.72) obtained the highest mean scores, indicating that teachers frequently use digital tools to facilitate interaction and enhance lesson presentation. Similarly, assessment practices (mean = 3.65) and classroom management (mean = 3.60) were also rated very high, suggesting that teachers effectively integrate technology in monitoring student progress and managing classroom activities. These results imply that the respondents are highly engaged in incorporating educational technologies into their teaching practices, making instruction more interactive, organized, and learner-centered. Overall, the consistent “very high” ratings across all dimensions indicate that educational technology has been fully embraced as a vital component of teaching, contributing to more efficient and effective instructional processes in basic education.

Dimensions	Mean	Interpretation
Instructional Delivery	3.72	Very High
Assessment Practices	3.65	Very High
Classroom Management	3.60	Very High
Communication And Collaboration	3.75	Very High
Overall Mean	3.68	Very High

Teaching performance of teachers based on their Individual Performance Commitment and Review Form (IPCRF) ratings

The findings reveal that the teaching performance of basic education teachers is exceptionally high, as evidenced by a mean rating of 4.73, which falls under the Outstanding category. A large majority of the respondents, 170 teachers (96.59%), obtained Outstanding ratings, indicating that they consistently exceeded performance expectations based on the Individual Performance Commitment and Review Form (IPCRF). Meanwhile, only 6 teachers (3.41%) were rated as Very Satisfactory, and none fell in the lower performance categories. This distribution suggests that the teachers in the study generally demonstrate a high level of competence, professionalism, and effectiveness in their instructional practices. The overwhelmingly Outstanding ratings may also reflect their strong commitment to teaching, continuous professional development, and effective integration of innovative strategies, including the use of educational technologies, which contribute to their overall teaching performance.

Teaching Performance	Frequency	Percent
4.499 – 3.500 (Very Satisfactory)	6	3.41
5.000 – 4.500 (Outstanding)	170	96.59
Mean	4.73	

Relationship between the utilization of educational technologies and the teaching performance of basic education teachers

The findings reveal that there is a significant positive relationship between the utilization of educational technologies and the teaching performance of basic education teachers, as indicated by a correlation coefficient of $r = 0.611$ and a probability value of $p = 0.001$, which is less than the 0.05 level of significance. This suggests that as teachers increase their use of educational technologies in instructional delivery, assessment, classroom management, and communication, their teaching performance also tends to improve. The moderate to strong positive correlation

implies that educational technology serves as an important factor in enhancing teachers' effectiveness in the classroom. Consequently, the result highlights the importance of continuous integration of digital tools and platforms in teaching practices, as well as the need for sustained professional development and institutional support to further strengthen teachers' technological competencies and overall performance.

This finding is supported by previous studies discussed in the literature. Minz et al. (2025) found a significant positive relationship between educational technology and teacher performance, emphasizing that technology use promotes instructional innovation, which enhances teachers' effectiveness. Similarly, Akram et al. (2022) reported that technology integration improves instructional practices by making learning more interactive and engaging, thereby contributing to better teaching outcomes. These studies affirm the present result that effective utilization of educational technologies is closely associated with improved teaching performance, reinforcing the idea that technology integration is a key driver of quality education in contemporary classrooms.

Variable	Coefficient (r)	Probability	Statistical Inference	Remarks
Utilization of Educational Technologies and Teaching Performance	0.611	0.001	Significant	Positive relationship

IV. CONCLUSION

In conclusion, the study established that basic education teachers demonstrate a very high level of utilization of educational technologies, alongside outstanding teaching performance as reflected in their IPCRF ratings. More importantly, the findings confirmed a significant positive relationship between the utilization of educational technologies and teaching performance, indicating that increased integration of digital tools contributes to enhanced instructional

effectiveness. This implies that educational technologies play a vital role in improving teaching quality by supporting innovative, efficient, and learner-centered practices. Therefore, continuous support in terms of training, access to resources, and institutional initiatives is essential to sustain and further enhance teachers' technological utilization and overall performance in the evolving educational landscape.

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