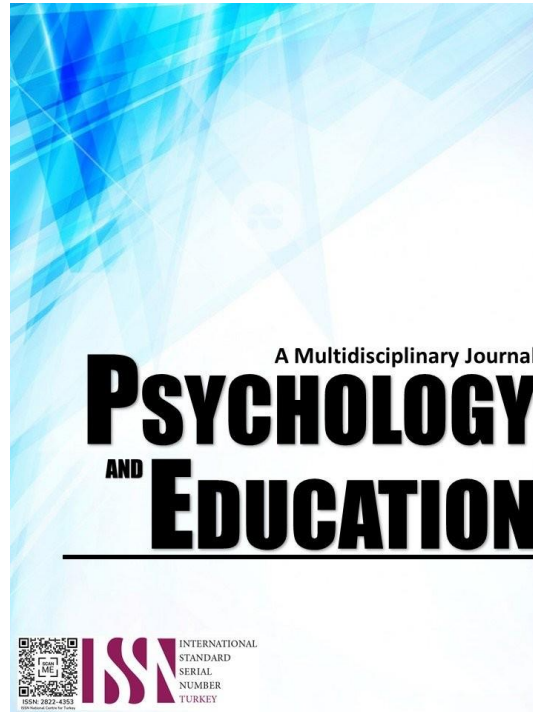


LEVEL OF TECHNOLOGY INTEGRATION OF SELECTED PUBLIC SCHOOL TEACHERS AND ITS CORRELATION TO THEIR PERFORMANCE: BASIS FOR TECHNOLOGY DEVELOPMENT PROGRAM



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Level of Technology Integration of Selected Public School Teachers and its Correlation to their Performance: Basis for Technology Development Program

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Abstract

This study aimed to determine the level of technology integration of the teachers in using various platforms in public elementary schools as a correlate to school performance. These findings serve as a solid foundation for a proposed learning development program, offering a promising future for the school year 2024-2025. Regarding technology knowledge, the teacher-respondents obtained a composite mean of 3.534, verbally interpreted as strongly Agreeing. In terms of technological competence, the teacher-respondents got a composite mean of 3.444, which was verbally interpreted as strong agreement. In terms of technical support, the teacher-respondents achieved a composite mean of 3.447, which was verbally interpreted as strongly Agreeing. The degree of Teachers' Performance Rating of the respondents during the school year 2023-2024. The Teacher-Respondents' performance rating was rated as "Outstanding." Surprisingly, no significant correlation was found between the level of technology integration and the respondents' performance ratings. This finding challenges common assumptions and provides valuable Insights. Surprisingly, no significant correlation was found between the level of technology integration and the respondents' performance ratings. This finding challenges common assumptions and provides valuable Insights.

Keywords: *technology, teacher, technological competence*

Introduction

Education should not only be confined to books, but one should also get a chance to explore his knowledge and try something new. Time has changed, and the mode of education should also be changed. And students should be given a chance to learn something new and interesting, and technology makes it possible.

The process of gaining knowledge is termed as educating ourselves. It is an endless process, but it is mostly used for students. There is no learning age, but students and school-going children are more connected with this word. When we use technology for education, it becomes more interesting and convenient.

School leaders are responsible for encouraging and supporting teachers to integrate technology into learning and teaching, especially when the Internet of Things rapidly makes its way into classrooms in ways never imagined. With Smart whiteboards and alternative interactive digital media being widely utilized during interactive classroom learning, school leaders must keep up-to-date with the new technologies. Thus, school leadership preparatory training should include technology to produce future-ready school principals who can lead teachers and students as learning experiences become virtual and ubiquitous. School technology leaders' ultimate goal is to propel learning and teaching forward toward student achievement. Regarding technology integration, the main responsibilities of managers, as leaders, and computer teachers in learning organizations include encouraging learning and securing the development of a rich learning environment to present opportunities for teachers and students to obtain new and correct information. Moreover, the need for leaders to agree to changes and share responsibilities if a school is to become a learning organization must be highlighted.

As Cakir and Yildirim (2019) assert, the integration of technology into the curriculum is vital for creating a rich teaching and learning environment. This integration should enable students to use new technologies as easily as they use traditional educational tools such as books, maps, and pencils. Computer teachers play a crucial role in this integration, while administrators are responsible for prioritizing the use of new technologies in schools and ensuring that computer teachers receive the necessary support. This underscores the urgency of their role in creating a rich learning environment.

In a learning organization, computer teachers and administrators are in leadership positions regarding the use of technology in schools. According to Fullan (2020), an effective school leader should possess characteristics such as an understanding of change, an openness to innovation, and a willingness to encourage learning and teaching. Not only should administrators expect teachers and students to use technology in their teaching and learning activities as leaders in innovation, but administrators should also embrace technology and use it as part of their school's investment in technology. In other words, a technology leader should model the use of technology for other teachers and students. By keeping an open mind regarding technology and innovation and using new technologies, computer teachers and administrators will be better able to shape the effective use of technology in their schools.

It is on this substantial thought that the researcher was encouraged to conduct a study on determining the level of technology integration using various technology platforms in the public elementary schools as a correlate to school performance to determine if they can provide effective practices that can help teachers properly use the different technology platforms; to determine if they can share strategies that can empower and capacitate the teachers in integrating the use of technology in the classroom setting, and to determine if they can provide the necessary technical assistance that can boost the morale and confidence of the teachers in using various

technology platforms that respond to better acquisition of lesson concepts.

Research Questions

This study aimed to determine the level of technology integration of the teachers in using various platforms in the public elementary schools as correlate to school performance which served as basis for a proposed learning development program for the school year 2024-2025. More specifically, it sought answers to the following questions:

1. What is the level of technology integration of the teachers in using various technology platforms in the public elementary schools in terms of the following:
 - 1.1. technology knowledge;
 - 1.2. technological competence; and
 - 1.3. technical support?
2. What is the degree of Teachers' Performance Rating of the respondents during the school year 2023-2024?
3. Is there a significant correlation between the level of technology integration of the respondents in using various technology platforms and their Performance Rating?
4. Based on the results of the study, what learning development program may be proposed?

Methodology

Research Design

The method of research used in the study was the descriptive-quantitative type. According to Sugiyono (2020), descriptive survey research design is a process that explains the relationships between variables, the testing hypothesis, and the development of generalization principles of theories with universal validity.

Furthermore, the descriptive research method is a comprehensive study conducted to determine variables, whether it's a single variable or multiple, without making comparisons or connections with other variables. The emphasis on objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating preexisting statistical data using computational techniques, provides a thorough understanding of the research subject.

Respondents

The researcher used purposive sampling. This was conducted in the District IB, especially at Bagong Nayon II Elementary School, Division of Antipolo City. The study respondents were 100 school teachers. Each instrument was administered to all the respondents. The respondents were given enough time to answer the research instrument. The scope of this study covered the teachers from the Bagong Nayon II Elementary School of District IB, Division of Antipolo City.

Instrument

The study used a researcher-made questionnaire and descriptive questions that served as indicators in every variable. The survey questionnaire consisted of three parts. The first part contained the evaluation of the respondents. The second part contained the school performance rating, and the third part contained the comments and suggestions of the teacher-respondents.

The questionnaires, which were the survey instrument of the study, underwent a rigorous validation process by experts. This meticulous process, involving principals, master teachers, English teachers, and an education program supervisor, was crucial in ensuring the correctness and validity of the questionnaire. Their comments and feedback were carefully considered in the final approval of the method, which was further examined by a consultant acting as the researcher's proofreader.

Procedure

Permission from the concerned authorities was sought before the study was conducted. Upon approval of the school's division superintendent and the principal, the questionnaire – checklist was administered to the teacher-respondents from the selected public elementary school of District IB, Division of Antipolo City, and will be personally retrieved by the researcher.

Data Analysis

Frequency, Percentage Distribution, and Ranking. This was used to analyze and summarize the results of the responses from the questionnaire.

Pearson r Correlation. This was used to determine the significant correlation between the leadership in using various technology platforms and the school performance.

Results and Discussion

This section provided the presentation, analysis, and interpretation of the gathered data from the questionnaires answered by the respondents in accordance with the specific questions posited on the objectives of the study.

Level of Technology Integration

Level of technology integration of the teachers in using various technology platforms In terms of Technology Knowledge

Table 1. *Level of technology integration of the teachers in using various technology platforms In terms of Technology Knowledge*

<i>As a teacher, I...</i>	<i>A. Technology Knowledge</i>	<i>Mean</i>	<i>Interpretation</i>	<i>Rank</i>
1. understand how technology tools, resources and devices fit into the process of teaching and learning.		3.4	Strongly Agree	5
2. use, various technologies, technological tools, and associated resources effectively for instruction.		3.5636	Strongly Agree	3
3. think more deeply how technology could influence the teaching approaches I use in my classroom		3.5818	Strongly Agree	2
4. utilize technology to facilitate higher order thinking skills, including problem-solving, critical thinking, decision-making, knowledge, and creative thinking		3.5273	Strongly Agree	4
5. make use of technology for more collaboration and communication among students and with teachers too.		3.6	Strongly Agree	1
Composite Mean		3.534	Strongly Agree	

As discussed in Table 1, the respondents stated that they make use of technology for more collaboration and communication among students and with teachers too, which got the highest weighted mean of 3.6 and the highest rank of 1. This approach highlighted their commitment to integrating digital tools to foster a connected and interactive learning environment. By leveraging technology, administrators facilitate real-time communication, resource sharing, and collaborative learning experiences, which are essential for modern education. Using technology for communication and collaboration allows administrators to create platforms where students and teachers can easily interact, share ideas, and access educational materials. This enhances the overall learning experience by promoting engagement, participation, and a sense of community within the school. Teacher education courses for technology integration significantly improve pre-service teachers' knowledge of technology-integrated teaching and learning, but no significant effects were found on course design or study quality (Wilson et al., 2020).

However, the said group of respondents stated that they understand how technology tools, resources and devices fit into the process of teaching and learning which yielded the least weighted mean of 3.4 and least rank of 5. The findings suggested that school administrators understand how technology tools, resources, and devices fit into the process of teaching and learning. This insight demonstrates their proficiency in integrating digital solutions to enhance educational experiences and outcomes. By recognizing the role of technology in education, administrators can effectively support teachers and students in utilizing these tools to facilitate learning, improve engagement, and streamline instructional processes. Understanding the integration of technology into teaching and learning allows administrators to make informed decisions about resource allocation, professional development, and curriculum design. It ensures that technology is used purposefully to support pedagogical goals, rather than being an add-on or distraction. According to Falloon (2020), the Teacher Digital Competence (TDC) framework aims to enhance teacher education by promoting holistic understanding of digital skills, preparing students for ethical, safe, and productive use in diverse digital environments.

The composite mean of 3.534 implied that the respondents have high level of technology integration in terms of technological knowledge. The findings suggested that the respondents have a high level of technology integration in terms of technological knowledge. This indicates that the school administrators and educators possess a strong understanding of various technological tools, resources, and devices, and are adept at incorporating them into the educational process. Their proficiency in technological knowledge enables them to effectively utilize digital platforms and tools to enhance teaching and learning experiences. A high level of technological knowledge among respondents means they are capable of selecting appropriate technologies that align with educational goals, troubleshooting technical issues, and staying updated with the latest technological advancements. This expertise supports the integration of technology in a way that enriches the curriculum, engages students, and facilitates efficient school operations. Özdemir & Karal (2021) stated that collaboration between pre-service classroom teachers and ICT teachers can enhance their technological pedagogical content knowledge and prepare them for future technology integration roles.

Level of technology integration of the teachers in using various technology platforms In terms of Technology Competence

As presented in Table 2, the respondents perceived that they consider the use of specific tools (e.g., software, simulation, environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research which got the highest weighted mean of 3.5818 and the highest rank of 1. The findings suggested that school administrators and educators consider the use of specific tools such as software, simulations, environmental probes, graphing calculators, exploratory environments, and web tools to support learning and research. This indicates a deliberate effort to integrate diverse technological resources into educational practices to enhance teaching effectiveness and student learning outcomes. In practice, the consideration and utilization of these specific tools demonstrate educators' commitment to fostering a dynamic and technology-enhanced learning environment. It supports personalized learning experiences, promotes critical thinking and digital literacy skills, and prepares students for future academic and professional endeavors. According to Wilson (2021), technology integration courses significantly improve preservice teacher attitudes and beliefs about

teaching and learning with technology.

Table 2. Level of technology integration of the teachers in using various technology platforms In terms of Technology Competence

<i>As a teacher, I...</i>	<i>B. Technological Competence</i>	<i>Mean</i>	<i>Interpretation</i>	<i>Rank</i>
1. teach lessons that appropriately combine (the particular content), technologies and teaching approaches.		3.4367	Strongly Agree	4
2. select technologies to use in my classroom that enhance what I teach, how I teach and what pupils learn.		3.4364	Strongly Agree	5
3. use strategies that combine (the particular content), technologies and teaching approaches that I learned about in my coursework in the classroom.		3.4545	Strongly Agree	3
4. consider the use of specific tools (e.g., software, simulation, environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research.		3.5818	Strongly Agree	1
5. evaluate and select new information resources and technological innovations based on their appropriateness to specific tasks.		3.5273	Strongly Agree	2
Composite Mean		3.444	Strongly Agree	

However, the said group of respondents observed that they select technologies to use in their classroom that enhance what I teach, how I teach and what pupils learn which yielded the least weighted mean of 3.4364 and least rank of 5. The findings suggested that school administrators and educators select technologies to use in their classrooms that enhance what they teach, how they teach, and what pupils learn. This indicates a strategic and thoughtful approach to integrating technology into the educational process, ensuring that digital tools are used to support and improve instructional practices and learning outcomes. By carefully selecting appropriate technologies, educators can enrich the curriculum, making lessons more engaging and interactive. This approach allows teachers to adopt various instructional methods that cater to different learning styles and needs, thereby enhancing the overall teaching and learning experience. Intra-active entanglements model offers a more contextualized, identity-based framework for teacher-technology collaboration than traditional models, improving teacher-technology integration success (Rice, 2021).

The composite mean of 3.487 implied that the respondents have high level of technology integration in terms of technological competence. The findings suggested that the respondents have a high level of technology integration in terms of technological competence. This indicated that the school administrators and educators possess strong skills and proficiency in utilizing technology effectively within educational settings. Their high level of technological competence enables them to leverage digital tools, resources, and platforms to enhance teaching practices, support student learning, and streamline administrative processes. The respondents' high level of technology integration in terms of technological competence underscores their commitment to leveraging technology as a catalyst for educational excellence and continuous improvement. It ensures that technology is effectively utilized to enhance educational outcomes, foster innovation, and prepare students for success in a digitally driven world. Fernández-Sánchez et al. (2022) stated that teacher training, particularly initial training, is crucial for promoting the integration of digital technologies in classrooms.

Level of technology integration of the teachers in using various technology platforms In terms of Technology Support

Table 3. Level of technology integration of the teachers in using various technology platforms In terms of Technology Support

<i>As a teacher, I am...</i>	<i>C. Technological Support</i>	<i>Mean</i>	<i>Interpretation</i>	<i>Rank</i>
1. assisted in choosing appropriate technology designs for the learning tasks/ activities of the learners.		3.4182	Strongly Agree	4
2. provided with capability technology training program to hone my skills on the use of technology.		3.5091	Strongly Agree	2
3. encouraged to do peer teaching mentoring/coaching on the use of technology.		3.5455	Strongly Agree	1
4. monitored and supervised on the use of technology by the teachers before, during, and after instructions.		3.3091	Strongly Agree	5
5. encouraged to provide leadership in helping others to coordinate the use of (the particular content), technologies and teaching approaches at my school and/or district.		3.4545	Strongly Agree	3
Composite Mean		3.447	Strongly Agree	

As shown in Table 3, the respondents showed that they were encouraged to do peer teaching mentoring/coaching on the use of technology which got the highest weighted mean of 3.5455 and the highest rank of 1. The findings suggested that respondents were actively encouraged to participate in peer teaching, mentoring, or coaching on the use of technology. This approach reflects a commitment to fostering professional development and collaborative learning among educators within the school community. By promoting peer teaching and mentoring/coaching initiatives, administrators support the exchange of knowledge, best practices, and innovative strategies for integrating technology into teaching practices effectively. Engaging in peer teaching allows educators to share experiences, troubleshoot challenges, and explore new ways to leverage technology to enhance student engagement and learning



outcomes. It promotes a culture of continuous improvement and professional growth, where educators can learn from each other's successes and collectively address technological barriers. A holistic system of professional learning, including formal, informal, and independent learning, can boost teachers' self-efficacy in technology integration through verbal persuasion, vicarious experiences, and mastery experiences (Barton & Dexter, 2020).

However, the said group of respondents stated that they were monitored and supervised on the use of technology by the teachers before, during, and after instructions which yielded the least weighted mean of 3.3091 and least rank of 5. The findings suggested that teachers were actively monitored and supervised on the use of technology by administrators before, during, and after instructions. This structured approach indicates a commitment to ensuring effective integration and utilization of technology in educational practices. By monitoring and supervising the use of technology throughout the instructional process, administrators can provide support, guidance, and feedback to educators, fostering a culture of accountability and continuous improvement. Before instruction, monitoring and supervision allow administrators to ensure that teachers are adequately prepared and equipped to implement technology-enhanced lessons. During instruction, it enables administrators to observe the implementation of technology in real-time, identify any challenges or areas for improvement, and provide immediate assistance or guidance as needed. After instruction, monitoring and supervision facilitate reflection, evaluation, and opportunities for professional development to enhance future use of technology. Top et al. (2021) stated that teachers prefer flexible technology mentoring, focusing on software learning, instructional materials, workload support, and technical support, leading to a teacher-centered ICT integration process.

The composite mean of 3.447 implied that the respondents have high level of technology integration in terms of technological support. The findings suggested that the respondents have a high level of technology integration in terms of technological support. This observation indicated that administrators and educators demonstrate strong proficiency and effectiveness in providing and utilizing technological support within educational contexts. According to Naimanova et al. (2023), school teachers' student-centered education competencies significantly predict their technology integration competencies, with no significant differences between gender and professional seniority.

Teachers’ Performance Rating (IPCRF)

Table 4. Teachers’ Performance Rating (IPCRF)

Rating	Interpretation	Frequency	Percentage
4.1 – 5.0	Outstanding	47	85.5%
3.1 – 4.0	Very Satisfactory	8	14.5%
2.1 – 3.0	Satisfactory	0	0
1.1 – 2.0	Unsatisfactory	0	0
0.1 – 1.0	Poor	0	0
Total		55	100%

Shown in Table 4 is the Teacher Performance Rating of the Respondents. A significant majority, 85.5% of the teachers, were rated as "Outstanding." This suggested that most teachers demonstrated exceptional performance throughout the 2023-2024 academic year. This high percentage reflected that most teachers excelled in their roles, exhibiting superior skills and effectiveness in their professional duties. The "Outstanding" rating indicated a strong commitment to excellence and successful implementation of high standards in teaching practices.

On the other hand, 14.5% of the teachers received a "Very Satisfactory" rating. Although this was a positive evaluation, it was lower than the "Outstanding" category, indicating areas where these teachers could improve. The "Very Satisfactory" rating denoted a high level of competence and performance but also suggested potential for further development.

The distribution of ratings revealed a predominantly high-performing group of teachers, with the majority achieving exceptional standards during the 2023-2024 academic year. However, the presence of "Very Satisfactory" ratings indicated that while the overall performance was strong, there was a subset of teachers who could benefit from targeted professional development to enhance their performance further. This interpretation highlighted both the strengths and opportunities for growth within the teaching staff. Llovio et al. (2023) discussed that teacher performance in educational contexts is influenced by their role in management, leadership, competitiveness, and academic training, with professional training and skills being crucial for achieving educational quality

Relationship between the Level of technology integration of the respondents in using various technology platforms and their Teachers’ Performance Rating

Table 5. Relationship between the Level of technology integration of the respondents in using various technology platforms and their Teachers’ Performance Rating

Variable	r-value	p-value	Decision	Interpretation
Level of technology integration of the teachers and Performance Rating	0.064	0.257	Accept Ho	Not Significant

Table 5 presented the results of a statistical analysis examining the relationship between the level of technology integration by teachers and their performance ratings. The variables analyzed were the level of technology integration and performance ratings of teachers.

The correlation coefficient (r-value) was 0.064, indicating a very weak positive correlation between the two variables. However, the p-value was 0.257, which is above the common threshold of 0.05, suggesting that the correlation was not statistically significant.

Consequently, the decision was to accept the null hypothesis (H_0), which states that there is no significant relationship between the level of technology integration by teachers and their performance ratings. The interpretation of the results was that the correlation between these variables was not significant. In summary, the analysis concluded that there was no meaningful relationship between how much teachers integrated technology into their teaching and their performance ratings in this study. According to Jung & Ottenbreit-Leftwich (2020), preservice teachers' technology integration learning improves when mapped to their technology-related course experience in a technology integration course.

Technology Development Program

Table 6. *Proposed Technology Development Program*

<i>Program Title</i>	<i>Objective</i>	<i>Time Frame</i>	<i>Person in Charge</i>
Advanced Technology Integration Workshops	Enhance educators' proficiency in utilizing advanced digital tools for interactive and personalized learning experiences.	INSET Quarterly 2025-2026	Director of Educational Technology
Cross-Departmental Collaborative Learning Communities	Foster a culture of collaboration and knowledge sharing among educators to enhance technology integration practices.	Year round 2025-2026	Coordinator of Professional Development
Comprehensive Technology Support System	Provide robust technical assistance and support for seamless technology integration in classrooms.	Year round 2025-2026	ICT Coordinators and Teaching Personnel
Enhanced Performance Evaluation Criteria	Refine performance evaluation processes to include specific indicators related to technology integration and instructional effectiveness.	End of School Year 2025-2026	Director of Human Resources
Research and Innovation Initiative	Foster a culture of research and innovation in educational technology to drive continuous improvement.	Year round 2025-2026	Research and Development Coordinator

Table 6 outlines five technology development programs aimed at enhancing educational practices through improved technology integration. Programs include Advanced Technology Integration Workshops led by the Director of Educational Technology, Cross-Departmental Collaborative Learning Communities overseen by the Coordinator of Professional Development, and a Comprehensive Technology Support System managed by the IT Support Coordinators. Additionally, initiatives involve refining Performance Evaluation Criteria under the Director of Human Resources and promoting Research and Innovation led by the Research and Development Coordinator. These efforts aim to boost educators' skills, foster collaboration, provide robust technical support, refine evaluation processes, and encourage innovative uses of technology in education.

Conclusions

Numerous conclusions have been developed based on the comprehensive results across several study dimensions. Several key findings have emerged in analyzing the level of technology integration among respondents in terms of technology knowledge, competence, and support. The study highlighted a strong commitment among school administrators and educators to integrate digital tools effectively into educational practices. This commitment was evident in their ability to leverage technology to enhance communication, collaboration, and learning experiences within the school environment. Administrators demonstrated a solid understanding of how technological tools contribute to teaching and learning processes, enabling them to support educators in utilizing these tools strategically. Regarding technology competence, administrators and educators showed proficiency in selecting and integrating specific technological resources such as software, simulations, and web tools to enrich educational practices. This strategic approach aimed to enhance instructional effectiveness and student engagement, reflecting a proactive stance toward preparing students for future academic and professional challenges in a digital era.

Our study revealed a truly supportive environment when it comes to technology. Educators are not just encouraged, but actively supported in engaging in peer teaching and mentoring/coaching on technology use. This collaborative approach fosters professional development and knowledge sharing among staff, promoting continuous improvement in integrating technology into instructional practices. The active monitoring and supervision by administrators further ensures that technology is effectively integrated before, during, and after instructional sessions, supporting educators in overcoming challenges and optimizing their use of digital tools. This supportive environment is a key factor in our success. Our analysis also considered teachers' performance ratings for the 2023-2024 academic year, indicating predominantly high performance levels among the teaching staff. While most teachers received outstanding ratings, the presence of 'Very Satisfactory' ratings highlighted the need for targeted professional development. This is not just about enhancing performance, but about ensuring that all teaching cohorts are equipped to provide the best education possible. It's a call to action for continuous improvement.

Furthermore, the study investigated the relationship between the level of technology integration and teachers' performance ratings. Despite a weak positive correlation between these variables, the statistical analysis concluded that this relationship was not statistically

significant. Therefore, the study accepted the null hypothesis, suggesting that while technology integration was valued and practiced among educators, it did not directly correlate with higher performance ratings during the study period. The findings underscored the importance of strategic technology integration, supportive professional development initiatives, and comprehensive performance evaluation frameworks in fostering educational excellence. Recommendations may focus on further enhancing technology integration strategies, refining professional development programs, and strengthening performance assessment methodologies to sustain and improve educational outcomes in the digital age.

Based on the conclusions from the study on technology integration and teacher performance, several recommendations are proposed to enhance educational practices and support continuous improvement. Firstly, enhancing professional development programs tailored to advanced technology integration strategies is crucial. These sessions should prioritize hands-on training, peer collaboration, and coaching to empower educators with the skills to utilize digital tools in diverse classroom settings effectively. Regular workshops and seminars should be implemented to keep educators updated with the latest advancements in educational technology. Secondly, promoting collaborative learning communities is essential. Establishing formalized peer mentoring programs and encouraging cross-departmental collaboration will foster a culture of collaboration and knowledge sharing among educators. This platform allows teachers to discuss challenges, successes, and innovative approaches to enhance teaching and learning through technology. Thirdly, comprehensive technology support systems should be implemented to strengthen administrative support for technology integration.

Educators should have access to technical assistance and troubleshooting resources before, during, and after instructional sessions. Clear protocols for technology use and ongoing training for administrators on effective monitoring and supervision techniques will optimize the integration of digital tools in classrooms. Additionally, refining performance evaluation criteria is crucial. Evaluation processes should include specific indicators related to technology integration and instructional effectiveness. Incorporating feedback mechanisms that allow educators to self-assess their technology proficiency and its impact on student engagement and learning outcomes will promote continuous growth and improvement. Lastly, investing in research and innovation is essential. Allocating resources and support for research initiatives focused on emerging technologies and their impact on educational outcomes will foster an environment of exploration and improvement. Partnerships with academic institutions, technology providers, and educational researchers should be established to pilot innovative technologies and evaluate their effectiveness in enhancing teaching practices and student achievement. Encouraging conference participation and publishing findings will contribute to the broader discourse on educational technology integration. These recommendations aim to create a supportive and innovative educational environment where technology is leveraged strategically to enhance teaching practices, empower educators, and ultimately improve student learning outcomes in the digital age.

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