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THE IMPLEMENTATION OF BLENDED LEARNING AS A CATALYST FOR ENHANCING TEACHERS' COMPETENCE AMONG ELEMENTARY SCHOOLS IN THE DIVISION OF DAVAO DEL NORTE

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ABSTRACT

This study examined the relationship between blended learning and teachers' performance among 139 elementary teachers in the Division of Davao del Norte. Specifically, it determined the extent of blended learning in terms of technology integration, pedagogy and curriculum, physical infrastructure, and educator proficiency, and assessed teachers' performance in terms of core competency, professional competency, ethical competence, and time management. A quantitative descriptive-correlational research design was employed using validated survey instruments. weighted mean, pearson product moment correlation, and multiple regression analysis were utilized to analyze the data at a 0.05 level of significance. Findings revealed that both blended learning and teachers' performance were extensive, indicating that these practices were oftentimes evident in participating schools. Correlation analysis showed a strong and significant relationship between blended learning and teachers' performance. Regression results further indicated that pedagogy and curriculum, technology integration, and educator proficiency significantly influenced teachers' performance, while physical infrastructure did not demonstrate a significant direct effect. The model explained a substantial proportion of the variance in teachers' performance. The study concludes that strengthening key domains of blended learning, particularly pedagogical innovation and educator capability, enhances teacher effectiveness. These findings provide empirical support for improving instructional practices and guiding educational policy in blended learning environments.

KEYWORDS: *Blended Learning; Teachers' Performance; Elementary Schools; Division of Davao Del Norte*

INTRODUCTION

Teachers' competence is essential in ensuring quality instruction in elementary classrooms, where foundational skills are developed. It involves core, professional, ethical competence, and time management in instructional practice. Beyond subject knowledge, it includes pedagogical skills, adaptability, digital literacy, and professional responsibility. As education continues to evolve with technology, strengthening teacher competence has become crucial for improving instruction and learner outcomes.

Globally, recent literature underscores that teacher competence is pivotal to effective instructional delivery, particularly in technology-enhanced learning contexts like blended learning. However, research indicates that numerous educators continue to face challenges regarding sufficient preparation, digital proficiency, and pedagogical adaptation necessary in these contexts. Bond et al. (2020) assert that teacher preparedness and digital proficiency substantially affect the efficacy of technology-enhanced learning. In the same way, blended learning environments require teachers to be organized, adaptable, and pedagogically competent in order to be effective (Graham, 2021; Hrastinski, 2021). Moreover, Trust and Whalen (2020) emphasized that continuous professional development enables educators to effectively integrate technology and maintain high-quality instruction in evolving learning environments.

In the Philippine education system, teacher competence has been emphasized by the Department of Education as a key component of ongoing reforms. The move toward more flexible and mixed learning styles has shown both the strengths and weaknesses of teachers' teaching skills. Studies show that Filipino educators encounter challenges such as limited preparation in digital teaching methods, gaps in access to technological resources, and varying levels of readiness in implementing different instructional modalities (Rapanta et al., 2020; DepEd, 2021). These problems have a direct impact on how well they teach, assess, and manage their classrooms. The Classroom Observation Tool (COT) also keeps an eye on teachers' performance by looking at their teaching methods and making sure they follow professional teaching standards. This shows how important it is for teachers to be good at their jobs in the classroom.

Within the Division of Davao del Norte, variations in training opportunities, resource availability, and institutional support contribute to differences in teacher competence. Some teachers are very good at teaching and using blended learning

strategies, but others have trouble because they haven't had enough training or exposure. These differences show that elementary school teachers in the division (DepEd, 2021) don't always have the same level of core competence, professional competence, ethical competence, and time management.

Despite existing studies on blended learning and teacher competence, a clear research gap remains. Most research focuses on student outcomes, technology integration, or overall teaching effectiveness, with limited attention to how blended learning influences specific domains of teacher competence. Teachers' performance is often conceptualized as a single construct, despite consisting of several interrelated domains such as core, professional, and ethical competencies, as well as time management. Moreover, empirical studies focusing on how blended learning influences this competence domains remain limited in Philippine elementary education, especially within localized contexts like the Division of Davao del Norte.

This gap highlights the need for a focused study linking blended learning implementation with the multidimensional aspects of teacher competence. Thus, this study aims to examine blended learning as a means of enhancing teacher competence among elementary school educators in the Division of Davao del Norte. This study aims to provide empirical evidence regarding teachers' core competence, professional competence, ethical competence, and time management to support professional development, enhance instructional practices, and strengthen blended learning implementation. Teachers' performance is operationally defined in this study based on four competency domains: core, professional, ethical, and time management.

THE STUDY'S OBJECTIVES

This study was conducted to determine the relationship between blended learning and teachers' performance.
Specifically, it sought to:

1. Determine the extent of blended learning in terms of:
    1.1. technology integration;
    1.2. pedagogy and curriculum;
    1.3. physical infrastructure; and
    1.4. educator proficiency.
2. Determine the extent of teachers' performance in terms of:
    2.1. core competency;
    2.2. professional competency;
    2.3. ethical competence; and
    2.4. time management.
3. Establish whether there is a significant relationship between the blended learning and teachers' performance.
4. Identify which of the domains of the blended learning significantly influence teachers' performance.

METHODOLOGY

In this chapter, the methodological framework of the study is presented. It describes the research design, the respondents, and the instruments used for data collection. It further explains the procedures undertaken to ensure the validity, reliability, and ethical conduct of the research process, as well as the methods employed in analyzing the data to address the research questions.

Method Used

In this study quantitative research approach was employed, specifically utilizing a descriptive-correlational design. The quantitative research is concerned with collecting and analyzing numerical information to explain phenomena, test hypotheses, and make predictions based on statistical evidence (Creswell & Creswell, 2021). According to Rahman (2022), this method is effective for systematically investigating variables and generating empirical data that may have broader generalizability population. In this case, this seeks to measure and analyze the relationship between blended learning and teacher performance in the Division of Davao del Norte, with blended learning as the independent variable and teacher performance as the dependent variable. This approach provides a structured and objective process for data collection and interpretation.

The descriptive component of the research design sought to present a clear picture in relation to the present state of blended learning implementation and teachers' performance levels without manipulating or influencing the variables under investigation. As noted by Mohajan (2020), descriptive research allows for a comprehensive analysis of characteristics, trends, and distributions, offering valuable insight into naturally occurring conditions in educational settings. This approach is beneficial in educational research, where variables cannot be ethically manipulated.

The correlational component of the design focuses on the strength and orientation of the correlation between blended learning indicators and teacher performance. According to Tabachnick and Fidell (2021), correlational research examines whether variations in one variable are associated with variations in another. In support of this, Bhandari (2021) affirms that

descriptive correlational studies are appropriate when examining relationships among existing variables without intervention, ensuring the authenticity of findings within real-world educational contexts.

Sources of Data

The study involved a population of 214 elementary teachers from different schools in the Division of Davao del Norte. Slovin's formula was employed to determine the appropriate sample size, as it is a commonly applied statistical method for estimating sample size when the population is known and a specified margin of error is established (Tejada & Punzalan, 2022). The resulting sample size of 139 respondents ensures sufficient population representation while maintaining statistical reliability and reducing sampling error (Mishra, 2019).

Inclusion criteria of the study were clearly defined to ensure validity of the findings. Only elementary teachers with three years of teaching experience and who had attended relevant trainings or seminars were included as respondents. This criterion was selected to guarantee that participants had adequate exposure to both traditional and blended learning modalities, enabling them to provide informed and reflective responses regarding their teaching performance. Teachers with under three years of teaching experience were excluded from the study, as they were still considered to be in the adjustment stage of their professional practice, which could influence the consistency of the data collected. This aligns with the suggestion by Creswell and Creswell (2021) that carefully defining respondent criteria improves the credibility of research outcomes. Moreover, purposive sampling was adopted to ensure that the selected participants could meaningfully contribute to the attainment of the study's objectives, particularly in examining the relationship between blended learning and teacher performance.

Data Gathering Instrument

The main data collection tool used in the study was a structured questionnaire design to assess blended learning and teachers' performance. It included closed-ended items measured through a Likert scale to capture respondents' perceptions and experiences in a quantitative manner.

For data gathering, the research utilized an adapted survey questionnaire consisting of two sections. The first section evaluated the extent of blended learning implementation, while the second centered on measuring teachers' performance. The blended learning questionnaire was adapted from Panigrahi, et al. (2024). The instrument consists of 26 items and included four indicators, namely technology integration (1-9), pedagogy and curriculum (1-9), physical infrastructure (1-4), and educator proficiency (1-4).

This questionnaire measuring the extent of blended learning underwent pilot testing prior to its full implementation. The pilot test was administered to a set of teachers with the same characteristics to the actual respondents. Cronbach's alpha results to a coefficient of 0.94 indicates high internal consistency of the instrument. A coefficient reliability of 0.90 or higher is considered excellent, according to Hair et al. (2022), implying that the instrument reliably assesses constructs including technology integration, pedagogy and curriculum, physical infrastructure, and educator proficiency. This confirms the result that the adapted questionnaire is appropriate for data collection, with items consistently representing the different domains of blended learning as defined in this study. Grading scale used to measure the extent of blended learning is presented below.

Mean Interval	Descriptive Level	Descriptive Interpretation
4.20-5.00	Very Extensive	The blended learning is always evident.
3.40-4.19	Extensive	The blended learning is oftentimes evident.
2.60-3.39	Moderately Extensive	The blended learning is occasionally evident.
1.80-2.59	Less Extensive	The blended learning is seldom evident.
1.00–1.79	Not Extensive	The blended learning is never evident.

The teachers' performance questionnaire was adapted from the study of Ayaneh, et al., (2021). The instrument consisted of 20 items and included four indicators, namely core competency (1-6), professional competency (1-8), ethical competence (1-4), and time management (1-2).

The questionnaire designed to assess teachers' performance was also subjected to pilot testing. Cronbach's alpha value in here computed at 0.95 indicating a high level of internal consistency among the items. This reliability score indicates that the instrument effectively measures the various dimensions of teacher performance. The strong reliability result further supports the relevance of the instrument for the actual study, ensuring that the responses gathered are consistent and serve as credible indicators of teachers' professional functioning in the settings of blended learning environments. The grading scale for the extent of teacher performance is presented below.

Mean Interval	Descriptive Level	Descriptive Interpretation
4.20-5.00	Very Extensive	Teachers' performance is always evident.
3.40-4.19	Extensive	Teachers' performance is oftentimes evident.
2.60-3.39	Moderately Extensive	Teachers' performance is occasionally evident.
1.80-2.59	Less Extensive	Teachers' performance is seldom evident.
1.00–1.79	Not Extensive	Teachers' performance is never evident.

The instrument used for this study were contextualized to align with the study's objectives. The researcher incorporated the comments and suggestions of the adviser, panel members, and expert validators in refining the instruments to secure construct validity.

Sampling Technique

The study implemented a stratified random sampling technique to identify the respondents. The population consisted of 214 elementary school teachers from the Division of Davao del Norte. A sample size of 139 teachers was determined using Slovin's formula with a 0.05 margin of error. Stratified sampling technique was considered appropriate as it involves dividing the population into relevant groups, such as schools or districts, and selecting respondents proportionately from each group. This ensures adequate representation of all population segments, minimizes sampling bias, and improves the generalizability of the findings (Creswell & Creswell, 2021).

This sampling technique was appropriate for the present study as it ensured proportional inclusion of teachers from different schools in the Division of Davao del Norte, capturing diverse experiences in blended learning implementation and its influence on teacher competence. By selecting respondents across various school settings, the study obtained a more comprehensive and balanced understanding of the correlation between blended learning domains and teacher performance. This approach also improved data reliability by ensuring that no subgroup of teachers was overrepresented or underrepresented in the sample.

The use of stratified random sampling was further strengthened by the application of clear inclusion and exclusion criteria. Eligible participants were full-time elementary teachers in public schools within the Division of Davao del Norte who were at least three year of teaching experience and was actively involved in the implementation of blended learning, and who voluntarily agreed to participate in the study. Teachers who were new, part-time, on leave during the data collection period and not engaged in blended learning practices were excluded to ensure the data collected was relevant and reliable.

In summary, the sampling technique enabled the collection of representative and dependable data, thereby strengthening the validity of the study's findings on the relationship between blended learning and teacher competence among elementary teachers in the Division of Davao del Norte.

Procedure of the Study

Data collection was conducted through a systematic and ethically grounded procedure to maintain accuracy, reliability, and integrity of the study results. It involved securing an ethics compliance certificate, obtaining an endorsement letter from the dean, requesting permission to conduct the study from the Schools Division Superintendent (SDS), sending letters to school heads, and validating the research instruments prior to questionnaire administration. Data were collected from the respondents in the Division of Davao del Norte.

Ethics Review. Prior to data collection, the researcher secured an Ethics Compliance Certificate dated November 6, 2025. This confirmed compliance with ethical standards for research involving human participants and ensured that the respondents' rights, dignity, and welfare were protected at all stages of the study. Ethical principles such as voluntary participation, informed consent, confidentiality of responses, and proper handling of data were 48 143 7 strictly observed in accordance to Data Privacy Act of 2012. The issuance of the certificate signifies that the study meets the required ethical guidelines and is permitted to proceed with the subsequent stages of the research.

Validation of the Instrument. Preceding to the actual administration of the research instruments, questionnaires undergoes expert validation on October 11, 15 and 18, 2025. The researcher provides validation sheets to selected experts who evaluate the research instruments in terms of clarity, relevance, appropriateness of content, and alignment with the research variables. The experts record their comments and suggestions in the validation sheets, which are carefully reviewed by the researcher. Necessary revisions are incorporated to improve the quality of the questionnaire before the final administration to the respondents. This process confirms that the instrument is valid, reliable, and capable of accurately measuring the variables in the study.

Endorsement from the Dean. After obtaining the Ethics Compliance Certificate, the researcher secured an endorsement letter from the office of the Dean of the Graduate School of Rizal Memorial Colleges, Inc. on November 15, 2025. The endorsement confirms that the research has undergone proper academic review and is aligned with the requirements of the

graduate program. It also verifies that the study is legitimate, academically sound, and appropriate for implementation in the identified research setting. The endorsement serves as official institutional support enabling the researcher to formally request permission from the Schools Division Office to conduct of the study.

Permit to Conduct the Study. With the endorsement letter from the Dean, the researcher submitted a formal request to conduct the study addressed to the Schools Division Superintendent (SDS) of Davao del Norte on January 12, 2026. The request includes the research title, objectives of the study, the target respondents, and the procedures for data collection. Supporting documents such as the endorsement letter, research instruments, and other required attachments are also submitted for review. Upon approval, the permit grants the researcher official authorization to conduct the study within the schools under the jurisdiction of the said division.

Permission from the Principals. Upon receipt of the permit from the Schools Division Superintendent, the researcher sent official letters to the principals of the identified schools in the Division of Davao del Norte on January 20, 2026. The letter informs the school heads about the purpose of the research, the respondents involved together with the procedures for the administration of the research instruments. Coordination with the principals is conducted to schedule the appropriate time for the distribution and retrieval of the questionnaires while ensuring that the regular school activities will not be disrupted. Their cooperation is essential in facilitating smooth communication with the respondents and ensuring an organized data collection process.

Statistical Treatment

To ensure a comprehensive interpretation and analysis of the data, the following statistical tools were employed:
To address Statement of the Problem Nos. 1 and 2, which determine the extent of blended learning and teacher performance across their respective indicators, the Weighted Mean was used. This statistical tool describes the central tendency of responses and determines the overall level of each variable. Through the computation of the average of mean, the study classified the extent of blended learning and teacher performance into descriptive levels, providing a clear interpretation of how frequently these practices are observed in schools.

In addition to the mean, another statistical treatment use which is the standard deviation to determine the variability or dispersion of respondent's answers. This measure provided insights into the consistency of teachers' perceptions of blended learning and their performance. A lower standard deviation means that responses are closely clustered around the mean, suggesting that there are more uniform perceptions or practices among respondents. In contrast, a higher standard deviation reflects larger variability, indicating differences in how blended learning practices are experienced or implemented by teachers. The use of standard deviation allowed for a deeper understanding of whether these practices are consistently applied or vary across school settings.

To answer Statement of the Problem No. 3, the Pearson Product-Moment Correlation Coefficient (r) was used to examines the relationship between blended learning and teacher performance. This statistical tool was utilized to the extent and direction of the relationship between between the variables. It assessed whether increases in blended learning practices were associated with corresponding changes in teacher performance, thereby indicating whether a significant relationship exists.

For Statement of Problem No. 4, which identifies which specific domains of blended learning significantly influence teachers' performance, Multiple Linear Regression Analysis was used. This seeks to identify the blended learning domains that significantly influence teacher performance. The statistical technique examined the joint and individual effects of the variables to each other, identified significant predictors of variation, and measured their level of influence. The analysis further identified the most influential domains, offering a clearer understanding of how these factors collectively affect teacher performance.

Ethical Consideration

The ethical considerations of this study address key principles that ensure the protection and well-being of the teacher respondents. These include confidentiality, informed consent, and voluntary participation, all of which support ethical conduct and uphold the rights of all respondents.

Social Value. This study holds significant social value, particularly in improving the educational quality in the Division of Davao del Norte. By exploring the relationship between blended learning and teacher performance, the findings may inform the formulation of local education policies and training programs designed to address gaps in teaching proficiency, curriculum delivery, technology integration, and physical infrastructure. It is expected to enhance the educational landscape by providing data-driven recommendations for sustainable blended learning implementation. The findings will benefit not only teachers but also school administrators and learners by improving instructional methods and ultimately raising academic outcomes across the division.

Informed Consent. All participants were provided with informed consent forms outlining the purpose of the study, procedures, possible risks and benefits, the voluntary nature of participation, and their right to withdraw at any time. The consent form was written in clear and understandable language and distributed before the survey was conducted. Participants were also informed, both verbally and in writing, that their responses would be treated as confidential and used solely for academic purposes. Since the respondents are adult professionals (teachers), assent procedures for minors were not applicable; however, all ethical standards concerning adult participation were strictly upheld.

Vulnerability of Research Respondents. Although teachers are not typically considered a vulnerable population, sensitivity to their professional environment and reputations is necessary. Some may feel apprehensive about the evaluation of their performance. Thus, participation is voluntary, and data collection will ensure anonymity to prevent reputational risk. The researcher will create a non-threatening environment by explaining that the study seeks to improve institutional and instructional support, not to critique individuals. Respondents was reassured that no administrative action will result from their participation or responses.

Privacy and Confidentiality. Privacy and confidentiality are paramount, following the Data Privacy Act of 2022. Respondents' identities will not be collected, and any personally identifiable information was anonymized during data analysis. Digital data was securely stored in encrypted files with access limited to the researcher and academic adviser. All printed data was stored in locked containers, and after the completion of the study, all materials was appropriately destroyed. No names or identifying details will appear in any reports or presentations.

Risk, Benefits and Safety. This study presents minimal risk to participants. The primary risk lies in the potential discomfort when responding to items related to personal teaching performance or blended learning implementation. However, the researcher will frame all questions respectfully and ensure that participation is non-evaluative. The expected benefits include developing strategies to support teachers in blended learning environments and enhancing policies formulated by local school officials. Safety is ensured through secure, voluntary online surveys or physically distanced data gathering, as required by current health protocols.

Justice. The principle of justice ensures fair and equitable treatment of all participants. Teachers from both urban and rural schools in the Division were given the same exact opportunities to participate in the research study. The selection process is inclusive, avoiding any discrimination based on age, gender, rank, or school classification. This ensures that the findings represent the experiences and challenges of a diverse teaching population and avoids privileging one group over another in analyzing and interpreting the results.

Transparency. The research process remained transparent throughout the entire study. Participants was informed of the goals, scope, and outcomes of the study. Updates on the research status was shared with key stakeholders, including participating schools and division officials. After the study, results was disseminated through feedback sessions or summary reports that can be accessed by respondents and stakeholders. This fosters openness, builds trust, and ensures that the community benefits from the knowledge generated.

Qualification of the Researcher. The researcher is a graduate student with a background in educational research and has undergone training in research ethics. To ensure ethical soundness, the researcher will seek guidance from the RMC Research Ethics Committee before proceeding with data collection. All processes will align with institutional guidelines and international ethical standards. This ensures that the study is conducted with due diligence, professionalism, and scholarly integrity.

Conflict of Interest. The researcher proclaims no personal or financial conflicts of interest. However, a hypothetical scenario may involve the researcher being employed in the same division. To mitigate any bias, the researcher will exclude their own school from the sample. Furthermore, data was analyzed independently of any administrative influence to uphold impartiality. Transparency about affiliations was maintained, and peer debriefing was utilized to avoid subjective interpretation.

Adequacy of Facilities. Secure online survey platforms such as Google Forms will be used for data collection. Statistical analysis will be performed using software such as SPSS or JASP available at the researcher's academic institution. Physical facilities, if needed for in-person distribution, include school classrooms or faculty rooms where respondents feel comfortable. The facilities are sufficient to ensure a smooth data gathering process with adequate privacy and security.

Community Involvement. The study will involve collaboration with school heads and local DepEd officials to facilitate the distribution and collection of surveys. Their involvement will ensure that the study is contextually appropriate and logistically feasible. After the research is concluded, findings was shared with the community through forums, reports, or

webinars, encouraging dialogue on how blended learning can be further improved in the division. This collaborative approach ensures that the community not only contributes to but also benefits from the research outcomes.

RESULTS

The study revealed that blended learning in the Division of Davao del Norte is implemented at an extensive level across the domains of technology integration, pedagogy and curriculum, physical infrastructure, and educator proficiency. Technology integration obtained the highest mean (M=4.05), indicating that teachers frequently utilize digital tools, communication platforms, and blended learning modules to enhance instruction and student engagement. Pedagogy and curriculum (M=4.04) also showed extensive implementation, reflecting the consistent use of advanced teaching strategies, participatory learning, and curriculum designs aligned with learners' future needs. Physical infrastructure (M=4.02) and educator proficiency (M=4.03) further demonstrated that schools generally provide supportive facilities and qualified teachers capable of implementing blended learning effectively. These findings suggest that blended learning practices are well-established and contribute positively to instructional delivery and learning experiences in elementary schools.

The results also showed that teachers' performance is extensive across all measured dimensions, namely core competency (M=4.05), professional competency (M=4.05), ethical competence (M=4.03), and time management (M=4.01). Teachers were found to be well-prepared in delivering lessons, providing learning materials, conducting assessments, and managing classroom interaction. They also demonstrated professionalism, fairness, inclusivity, and responsiveness to students' academic needs. These findings indicate that teachers possess strong instructional and professional capabilities necessary for effective teaching within blended learning environments.

Correlation analysis established a significant positive relationship between blended learning and teachers' performance (r=.669, p=.001), confirming that higher levels of blended learning implementation are associated with better teacher performance. Among the domains, pedagogy and curriculum showed the strongest relationship with professional competency (r=.789), followed by technology integration and educator proficiency. Multiple regression analysis further confirmed that blended learning significantly predicts teachers' performance, with pedagogy and curriculum (β=.366), educator proficiency (β=.319), and technology integration (β=.260) emerging as significant predictors. The regression model explained 83.6% of the variance in teachers' performance (R^2=.836), highlighting blended learning as a major factor influencing instructional effectiveness. However, physical infrastructure showed no significant direct effect, suggesting that teacher competence and instructional strategies have greater influence on performance than facilities alone. Overall, the findings emphasize that effective implementation of blended learning strengthens teacher competency, instructional quality, and educational outcomes in the Division of Davao del Norte.

Conclusions and Recommendation

Summary

The study focusses on the determining the significance of the relationship between blended learning and teachers' performance among 139 elementary teachers in the Division of Davao del Norte. Specifically, it examined the extent of blended learning in terms of technology integration, pedagogy and curriculum, physical infrastructure, and educator proficiency, as well as teachers' performance in terms of core A descriptive correlational research design was employed using adopted and validated survey instruments which were subjected to expert validation and pilot testing to ensure reliability, validity and internal consistency. To determine the extent of each variable weighted mean was applied, while to examine the relationships and influences among variables at the 0.05 level of significance the Pearson product-moment correlation and multiple regression analysis were used.

The findings of the study found that blended learning is extensively implemented in elementary schools in the Division of Davao del Norte. All four domains technology integration, pedagogy and curriculum, physical infrastructure, and educator proficiency-were found to be oftentimes evident in school practices. This indicates that blended learning strategies are actively implemented and supported within the participating schools. Among the domains, pedagogy and curriculum, technology integration, and educator proficiency showed particularly strong manifestations, indicating that instructional design, digital integration, and teacher capability are central features of blended learning implementation in the local setting.

Similarly, the extent of teachers' performance was found to be extensive across all four indicators, namely core competency, professional competency, ethical competence, and time management. Core and professional competencies emerged as the most prominent dimensions, reflecting teachers' strong instructional preparation, assessment practices, classroom interaction, and use of varied teaching strategies. Ethical competence and time management were likewise evident, indicating that teachers consistently demonstrate fairness, professionalism, punctuality, and responsiveness to students' needs. These findings suggest that teachers within the Division of Davao del Norte exhibit a holistic and well-rounded performance profile aligned with contemporary educational standards.

The study confirmed that there is a significant relationship between blended learning and teachers' performance. The overall correlation indicated a strong positive association, suggesting that improvements in blended learning practices are accompanied by corresponding enhancements in teacher performance.

Regression analysis further revealed that pedagogy and curriculum, technology integration, and educator proficiency significantly influence teachers' performance, while physical infrastructure did not show a significant direct effect. The coefficient of determination reveals that a considerable portion of the variation in teachers' performance is accounted for by the combined domains of blended learning. Thus, the null hypotheses positing no significant relationship between blended learning and teachers' performance and no significant influence of each domain on performance, were rejected. The results emphasize the role of pedagogical innovation, digital competence, and educator capability in enhancing teacher effectiveness in blended learning contexts in the Division of Davao del Norte.

Conclusions

The results of the study provide evidence that blended learning among elementary teachers in the Division of Davao del Norte is consistently observed across its major domains. This suggests that schools have moved beyond initial adoption and are already embedding blended practices into routine instruction. In relation to the first and second problems, both blended learning and teachers' performance were found to be highly manifested, indicating that teachers are not only exposed to blended modalities but are also capable of translating these into effective instructional practices. This outcome clearly supports the assumptions of constructivist learning theory (Piaget, 1972; Vygotsky, 1978), which posits that meaningful learning occurs when teachers facilitate active, student-centered environments. The strong presence of pedagogy and curriculum as a leading domain affirms that teachers are engaging learners through interactive and participatory approaches, consistent with constructivist principles rather than contradicting them.

Moreover, the significant relationship between blended learning and teachers' performance indicates that instructional innovation is instrumental key role in elevating teacher effectiveness. This supports Cognitive Load Theory (Sweller, 1988), which underscores structured instructional design as crucial for efficient learning process. The incorporation of technology and pedagogical strategies enables teachers to organize content, manage digital tools, and scaffold learning, leading to improved instructional delivery and student comprehension. The results do not contradict the theory; instead, they reinforce the idea that teachers who manage cognitive demands within blended environments demonstrate higher levels of performance.

In addressing the third problem, the strong positive correlation between blended learning and teachers' performance suggests that improvements in blended practices correspond to enhanced competencies in teaching. This relationship is further supported by social learning theory (Bandura, 1977), which he emphasizes that the role of modeling and interaction in learning is relevant. Teachers who demonstrate proficiency in blended environments model effective communication, collaboration, and digital practices, which in turn strengthen their professional and ethical competencies. The findings confirm that blended learning creates opportunities for interactive and socially mediated instruction, thereby improving overall teacher performance.

With regards to the fourth problem, the regression analysis reveals that not all domains equally influence teachers' performance. Pedagogy and curriculum, technology integration, and educator proficiency emerged as significant predictors, whereas physical infrastructure did not show a direct significant effect. This indicates that although infrastructure provides essential support, human and pedagogical factors primarily drive instructional effectiveness. This conclusion supports theoretical perspectives that emphasize teacher agency and instructional design over mere availability of resources. It also suggests that effective teaching in blended environments depends more on how resources are utilized rather than simply their presence.

The study concludes that blended learning serves as a critical mechanism for enhancing teachers' performance when it is grounded in sound pedagogy, supported by technological competence, and strengthened by educator proficiency. These findings imply that schools should prioritize continuous professional development programs focused on pedagogy and technology integration rather than relying solely on physical infrastructure improvement. Administrators may strengthen teacher performance by providing targeted training that enhances instructional design skills and digital competence. Furthermore, policy initiatives should focus on sustaining capacity-building programs that support teachers in effectively implementing blended learning strategies. Thus, improving teacher effectiveness in blended learning environments requires a sustained investment in human capital development rather than infrastructure alone.

Recommendations

Based on the results and conclusions of the study, the following recommendations are offered:

It is recommended that sustained policy support and targeted investments be directed toward strengthening the most influential domains of blended learning, particularly pedagogy and curriculum, technology integration, and educator proficiency. Since these domains significantly influence teachers' performance, national and regional programs should

prioritize continuous professional development in digital pedagogy, instructional design, and technology-enhanced assessment. Moreover, capacity-building initiatives should extend beyond one-time training and promote long-term mentoring systems, digital coaching programs, and structured monitoring mechanisms to support the effective implementation and continuous improvement of blended learning practices across schools..

It is recommended that they cultivate a supportive school culture that encourages innovation, collaboration, and reflective practice. School leaders should provide regular in-house training sessions, peer observation opportunities, and professional learning communities that focus on improving pedagogical strategies within blended learning environments. Considering the significant influence of educator proficiency on teachers' performance, principals should also design school-based professional development plans tailored to the needs of their faculty. Additionally, they should strengthen instructional supervision practices that focus not only on compliance but on coaching and developmental feedback to help teachers refine their blended teaching approaches.

It is recommended that they continuously enhance their competencies in integrating technology with sound pedagogical strategies. Teachers should actively engage in self-directed professional learning, explore emerging digital tools, and adopt learner-centered instructional approaches that align with blended learning principles. Since pedagogy and curriculum were found to be the strongest predictors of performance, teachers are encouraged to design interactive lessons, incorporate formative assessments, and provide timely feedback to students.

Also, maintaining ethical standards and effective time management practices should remain a priority to ensure holistic instructional effectiveness in both physical and digital learning environments.

Further studies are recommended to examine other variables that may affect teachers' performance in blended learning contexts, including leadership style, teacher motivation, student readiness, and parental involvement. Future research may also adopt mixed-method approaches to obtain deeper qualitative insights into teachers' experiences in implementing blended learning. In addition, longitudinal studies are suggested to evaluate the long-term impacts of sustained improvements in blended learning practices on teacher performance. Expanding the study to other divisions or regions may likewise provide comparative data that can support national educational policies frameworks and strengthen the implementation of blended learning in the Philippine education system.

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