



Readiness, Difficulties, and Compliance of Public Secondary School Teachers in Blended Learning

Jake G. Clavel¹, Rey T. Eslabon²

^{1,2}STI West Negros University, Philippines

Corresponding Email: rey.eslabon@wnu.sti.edu.ph

Received: September 1, 2026

Revised: September 20, 2026

Accepted: September 30, 2026

ABSTRACT

This study examined the readiness, difficulties, and compliance of public secondary school teachers in implementing blended learning. It also determined whether significant differences existed when teachers were grouped according to age, sex, highest educational attainment, and length of service. The respondents represented diverse demographic and professional backgrounds, with younger teachers, females, bachelor's degree holders, and those with shorter teaching experience slightly predominating. Findings revealed that teachers demonstrated a high level of readiness in time management, communication, availability of resources, and facilitated learning. Despite this readiness, they also experienced a high level of difficulties, particularly in managing instructional materials, maintaining communication with learners and parents, accessing appropriate resources, and providing adequate learner support. Nevertheless, teachers demonstrated a great extent of compliance with blended learning practices across the identified areas. Group comparisons showed that readiness, difficulties, and compliance were generally consistent across demographic and professional characteristics. Significant differences were observed in communication according to age and length of service, facilitated learning according to length of service, and selected areas of difficulties and compliance according to length of service. The findings suggest that teachers require sustained institutional support, needs-based professional development, mentoring, improved resource accessibility, strengthened communication systems, and learner-centered instructional support. A development plan is therefore recommended to enhance teachers' readiness and address continuing challenges in blended learning implementation.

Keywords: Blended Learning, Communication, Facilitated Learning, Instructional Resources

How to Cite:

Clavel, J. G., & Eslabon, R. T. (2026). Readiness, Difficulties, and Compliance of Public Secondary School Teachers in Blended Learning. *Global Journal of STEM Education & Management Research*, 2(3), 238-253.
<https://doi.org/10.5281/zenodo.23094194>



This work is Licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).



INTRODUCTION

The COVID-19 pandemic caused an unprecedented disruption in education, forcing schools worldwide to suspend face-to-face instruction and adopt alternative learning arrangements to sustain educational continuity. This situation placed greater urgency on Sustainable Development Goal 4 (SDG 4), which calls for inclusive and equitable quality education and the promotion of lifelong learning opportunities for all. The United Nations (2020) emphasized the need to maintain learning opportunities despite widespread school closures to prevent further inequalities in education. In the Philippines, this global concern became particularly important as schools sought ways to continue instruction while protecting learners and teachers from the risks associated with COVID-19.

In response to the disruption, the Department of Education (DepEd) adopted the Basic Education Learning Continuity Plan (BE-LCP) for School Year 2020–2021 through DepEd Order No. 012, s. 2020. The plan provided for alternative learning delivery modalities, including modular distance learning, online learning, television-based instruction, radio-based instruction, and blended learning, depending on the needs and circumstances of learners and schools (Department of Education [DepEd], 2020). DepEd also prepared Self-Learning Modules and other learning resources to support the implementation of these modalities, particularly for learners with limited or no access to internet connectivity (DepEd, 2020). These measures reflected the urgent need to maintain learning continuity while face-to-face classes remained restricted.

The shift in instructional delivery placed new responsibilities on teachers. They were expected to prepare and distribute learning materials, communicate with learners and parents, monitor learning progress, manage instructional time, utilize available technologies and resources, and facilitate learning under unfamiliar conditions. Lapada et al. (2020) found that Filipino teachers were coping with distance learning while considering institutional readiness and the difficulties associated with delivering education through alternative modalities. Similarly, Anoba and Cahapay (2020) emphasized the importance of teacher readiness in the transition toward blended learning, particularly in adapting instructional practices and utilizing technology to address the demands of the changing educational environment.

In Binalbagan, Negros Occidental, public secondary school teachers encountered similar demands as they continued providing education under the conditions created by the COVID-19 pandemic. Teachers had to manage their instructional time, maintain communication with learners and parents, provide and monitor learning resources, facilitate learning, and comply with curriculum and assessment requirements despite differences in connectivity, technological resources, and learner support. These circumstances highlight the importance of examining teachers' readiness, the difficulties they encountered, and their extent of compliance with blended learning requirements. Therefore, this study seeks to provide a local understanding of teachers' experiences during this period and establish an evidence-based foundation for an action plan that can strengthen teacher preparedness and support the implementation of blended learning during educational disruptions.

OBJECTIVES OF THE STUDY

This study aimed to determine the level of readiness, level of difficulties, and extent of compliance of public secondary teachers regarding blended learning in two districts of a large-sized division in the Negros Island Region during the School Year 2021–2022 as a basis for a development plan. Specifically, it sought to determine the profile of the respondents in terms of age, sex, highest educational attainment, and length of service; assess the level of readiness of public secondary teachers in blended learning in terms of time management, communication, availability of resources, and facilitated learning; determine whether there was a significant difference in their level of readiness when grouped and compared according to the aforementioned profile variables; determine whether there was a significant difference in their level of difficulties in blended learning when grouped and compared according to the same variables; and determine whether there was a significant difference in their extent of compliance with blended learning when grouped and compared according to the aforementioned variables.

LITERATURE REVIEW

Teachers' readiness is a multidimensional factor in the successful implementation of blended learning, encompassing technological competence, instructional planning, pedagogical adaptability, learner support, and the ability to manage different learning environments. Recent studies support this perspective, with Çemçem et al. (2024) developing and validating a blended-learning readiness scale that demonstrated the importance of technological facilities and other dimensions of teacher



preparedness. Similarly, Kaban et al. (2024) examined teachers' readiness and challenges in blended learning, while Deng et al. (2025) found that readiness involved technological skills, instructional planning, personalization, and support for students' self-regulated learning. These findings indicate that teacher readiness extends beyond familiarity with technology and includes the capacity to effectively organize and facilitate learning across blended modalities.

Time management is particularly important because blended learning requires teachers to balance face-to-face instruction with online preparation, assessment, communication, and learner monitoring. Banihashem et al. (2023) reported that 83% of teachers perceived blended teaching as increasing their workload, while Salmorin and Motus (2024) found that teachers experienced difficulties involving time management, excessive workload, stress, and connectivity. More recently, Magdoboy and Baguio (2025) reported workload and time-management struggles among teachers implementing mixed-mode instruction. These findings suggest that teachers' readiness is closely associated with their ability to organize and prioritize instructional responsibilities while managing the additional demands created by blended learning.

Communication is another essential dimension of readiness and a recurring difficulty in blended learning. Effective communication requires teachers to provide clear instructions, maintain interaction, respond to learners' concerns, and give timely feedback through both face-to-face and digital channels. Kreber et al. (2021) identified interaction and communication as significant challenges in blended environments, particularly when expectations, social presence, and communication channels are unclear. More recently, Shah et al. (2024) reported communication difficulties associated with technology and internet connectivity, while Ali (2025) identified low self-efficacy and lack of readiness as institutional barriers to effective blended-learning implementation. These findings emphasize the importance of teachers' capacity to sustain meaningful and responsive communication across different learning modalities.

The availability of resources also influences teachers' readiness and their ability to implement blended learning effectively. Teachers require reliable internet connectivity, digital devices, instructional materials, learning platforms, and technical support to perform their responsibilities. Çemçem et al. (2024) included access to necessary technological facilities as an important component of blended-learning readiness, while Shah et al. (2024) identified inadequate resources and training as barriers to implementation. Ali (2025) further reported that insufficient technological infrastructure, unreliable internet connectivity, and unavailable technological facilities hindered institutional blended-learning implementation. Thus, resource availability is not merely a supporting condition but an important factor that can influence teachers' preparedness and their capacity to translate blended-learning requirements into actual classroom practice.

Facilitated learning requires teachers to guide learners, organize activities, facilitate interaction, monitor progress, and provide feedback across face-to-face and technology-mediated environments. Yan et al. (2024) found that teaching presence in blended synchronous classrooms included facilitating discourse, direct instruction, assessment, instructional organization, and affective support, with teaching presence contributing to student engagement. Pei et al. (2024) likewise emphasized the contribution of teacher facilitation to students' sense of community in blended education. In the Philippine context, Allado et al. (2025) reported difficulties in adapting instructional practices to different learning modalities. These findings indicate that teachers' readiness and difficulties in facilitated learning are closely related to their ability to adapt instructional strategies, maintain learner engagement, provide guidance, and respond to diverse learner needs.

Teachers' compliance in blended learning involves consistently implementing prescribed instructional procedures, institutional policies, curriculum requirements, schedules, reporting responsibilities, and learner-support activities. Ali (2025) found that teacher resistance, increased workload, policy issues, and lack of readiness affected institutional implementation, particularly when clear written guidelines were absent. Kaban et al. (2024) likewise highlighted the relationship between teacher readiness, experiences, and challenges in blended-learning practice, while Gültekin and Mede (2024) found a significant relationship between blended-teaching readiness and teachers' computer-use abilities.

These findings suggest that compliance is influenced by both individual preparedness and institutional conditions. Therefore, examining teachers' readiness, difficulties, and extent of compliance in terms of time management, communication, resource availability, and facilitated learning is relevant in identifying areas that require professional development, technical assistance, and institutional support for more consistent blended-learning implementation.



METHODOLOGY

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

Research Design

This study employed the descriptive research method to determine the level of readiness, difficulties, and compliance of public secondary school teachers in blended learning in two districts of a large-sized Schools Division in the Negros Island Region during School Year 2020–2021, as a basis for developing an appropriate developmental plan. Descriptive research involves the systematic collection, organization, analysis, and interpretation of quantitative data using statistical measures such as mean, median, mode, percentage, variation, and correlation to summarize characteristics and relationships among variables (Galloway, 2016). This research design was deemed appropriate because it enabled the researcher to quantitatively assess the teachers' readiness, difficulties, and compliance in blended learning and to organize and interpret the gathered data systematically to address the objectives of the study.

Study Respondents

The respondents of this study were public secondary school teachers from the two districts. The study involved teachers from six (6) public secondary schools within the two districts. District 1 has three (3) secondary schools with a total population of 149 teachers, while District of 2 also has three (3) secondary schools with a total population of 116 teachers. Hence, the total population consisted of 265 public secondary school teachers. From the total population of 265 teachers, 158 teachers were selected as respondents of the study. The respondents were chosen through the lottery method, a form of simple random sampling, to provide each teacher in the identified population with an equal opportunity to be selected. This sampling procedure was employed to minimize selection bias and ensure that the respondents adequately represented the population of public secondary school teachers in the two districts.

Instruments

The study employed a researcher-made questionnaire administered to teacher-respondents, consisting of two parts: Part I gathered respondents' profiles in terms of age, sex, highest educational attainment, and length of service, while Part II comprised 120 items measuring the level of readiness, difficulties, and extent of compliance in blended learning, with 40 items allotted to each variable and 10 items per area. The respondents rated each item using a five-point Likert scale: 5–Always, 4–Often, 3–Sometimes, 2–Rarely, and 1–Almost Never. To establish validity, the instrument underwent face and content validation by five doctorate-level experts in education and research, whose recommendations were incorporated into the final questionnaire. Using the criteria of Good and Scates, the instrument obtained a validity index of 4.56, interpreted as Excellent, indicating that it was clear, relevant, appropriate, and suitable for measuring teachers' readiness, difficulties, and compliance in blended learning. Reliability was established through a dry run involving 30 public secondary teachers, with 15 participants from each of two districts, and was assessed using Cronbach's alpha. The instrument obtained a reliability coefficient of 0.953, interpreted as Excellent, demonstrating high internal consistency and confirming its suitability for administration in the actual study.

Data Gathering Procedure

After the administration of the validity and reliability test of the research instrument, the researcher coordinated with the Office of the Schools Division Superintendent, Public Schools District Supervisor and the School Heads of all concerned schools for approval. Upon approval, the questionnaires were administered to target respondents. Due to the strict implementation of safety protocols, the soft copy of the data gathering instrument were sent through Google Form. The link of which was sent to the respondents through instant messaging. The data gathered from the responses of the respondents were tallied and tabulated using the appropriate statistical tools. The raw data were converted into numerical code guided by a coding manual. This allowed computer processing, statistical derivations and tabular presentation. The Statistical Package for Social Sciences (SPSS) was used in the computer processing of the encoded data.



Data Analysis and Statistical Treatment

The analytical schemes employed in the study were determined by the nature of the research problem and the specific objectives of the investigation. Objective No. 1 utilized a descriptive analytical scheme, frequency counts, and percentages to determine the respondents' profile in terms of age, sex, highest educational attainment, and length of service. Objectives Nos. 2, 3, and 4 employed a comparative analytical scheme and the Mann–Whitney U test to determine the significant differences in the level of readiness, level of difficulties, and extent of compliance of public secondary teachers in blended learning, respectively, when grouped and compared according to the aforementioned profile variables.

Ethical Consideration

The researcher adhered to ethical standards and the Data Privacy Act of 2012 by ensuring the privacy, anonymity, and confidentiality of all respondents and collecting no personal information that could compromise their identities. Participation was voluntary, and respondents were fully informed of the study's purpose, the nature of their participation, and their right to decline or withdraw at any time without consequence. Access to the collected data was limited to the researcher, and all information was used solely for the purposes of the dissertation and reported accurately and objectively. No identifying information was disclosed or published without consent, except when necessary to protect the respondents' rights and welfare. After publication, physical research materials were securely destroyed through shredding or dissolution, while electronic files were permanently deleted to prevent future retrieval. Throughout the study, the researcher treated all participants with respect, fairness, dignity, honesty, and responsibility.

RESULTS AND DISCUSSION

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

Profile of the Respondents According to the Variables Age, Sex, Highest Educational Attainment and Length of Service

Table 1

Profile of Respondents

Variables	Categories	Frequency	Percentage
Age	Younger (below 35 years old)	86	54.40
	Older (35 years old and above)	72	45.60
	Total	158	100
Sex	Male	71	44.90
	Female	87	55.10
	Total	158	100
Highest Educational Attainment	Lower (Bachelor's Degree)	95	60.10
	Higher (Masters's Degree)	63	39.90
	Total	158	100
Length of Service	Shorter (less than 10 years)	83	52.50
	Longer (10 years and more)	75	47.50



Table 2 presents the profile of the respondents in terms of age, sex, educational attainment, and length of service. The results showed that most respondents are younger teachers below 35 years old (54.40%) and are predominantly female (55.10%). In terms of educational attainment, the majority hold a Bachelor's Degree (60.10%), while a smaller proportion have a Master's Degree. Regarding length of service, slightly more respondents have less than 10 years of teaching experience (52.50%) compared to those with 10 years and above. Overall, the profile indicates that the respondents are mostly younger, female teachers with lower educational attainment and relatively shorter teaching experience.

Comparative Analysis in the Level of Readiness of Public Secondary Teachers on Blended Learning in the areas of Time Management, Communication, Availability of Resources, and Facilitated Learning when grouped according to variables Age, Sex, Highest Educational Attainment, and Length of Service

Table 2

Difference in the Level of Readiness of Public Secondary Teachers on Blended Learning in the area of Time Management when grouped according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	86	73.15	2549.500	0.056	0.05	Not Significant
	Older	72	87.09				
Sex	Male	71	77.15	2921.500	0.558		Not Significant
	Female	87	81.42				
Highest Educational Attainment	Lower	95	78.74	2920.000	0.796		Not Significant
	Higher	63	80.65				
Length of Service	Shorter	83	71.40	2440.500	0.019		Significant
	Longer	75	88.46				

Table 2 presents the difference in the level of readiness of public secondary teachers in blended learning in terms of time management when grouped according to age, sex, highest educational attainment, and length of service. The Mann-Whitney U test revealed no significant differences in readiness according to age ($p = 0.056$), sex ($p = 0.558$), and educational attainment ($p = 0.796$), as all p-values were greater than the 0.05 significance level. However, a significant difference was found according to length of service ($p = 0.019$), with teachers having longer service obtaining a higher mean rank (88.46) than those with shorter service (71.40). Thus, the null hypothesis was accepted for age, sex, and educational attainment but rejected for length of service.

The findings indicate that teachers' readiness for blended learning in terms of time management differs significantly according to length of service, suggesting that longer-serving teachers may demonstrate greater readiness in managing time within blended learning environments. This result is consistent with Lapada et al. (2020), who found that teaching experience was significantly associated with teachers' readiness for distance learning, indicating that accumulated professional experience may contribute to preparedness for technology-mediated instruction.



Table 3

Difference in the Level of Readiness of Public Secondary Teachers on Blended Learning in the area of Communication when grouped according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	86	72.82	2521.500	0.044	0.05	Significant
	Older	72	87.48				
Sex	Male	71	77.99	2981.500	0.707	0.05	Not Significant
	Female	87	80.73				
Highest Educational Attainment	Lower	95	82.99	2661.100	0.236	0.05	Not Significant
	Higher	63	74.24				
Length of Service	Shorter	83	69.55	2287.000	0.004	0.05	Significant
	Longer	75	90.51				

Table 3 presents the difference in the level of readiness of public secondary teachers in blended learning in terms of communication when grouped according to age, sex, highest educational attainment, and length of service. The Mann–Whitney U test revealed significant differences in readiness according to age ($p = 0.044$) and length of service ($p = 0.004$), with older teachers obtaining a higher mean rank (87.48) than younger teachers (72.82), and longer-serving teachers obtaining a higher mean rank (90.51) than those with shorter service (69.55). However, no significant differences were found according to sex ($p = 0.707$) and educational attainment ($p = 0.236$), as both p-values exceeded the 0.05 significance level.

The findings indicate that teachers' readiness for blended learning in terms of communication varies significantly by age and length of service, suggesting that greater age and accumulated teaching experience may contribute to preparedness in communicating within blended learning environments. This may be attributed to teachers' broader exposure to instructional practices and their experience in adapting to changing educational demands. The finding is supported by Lujero (2025), who emphasized the role of teacher competencies and self-efficacy in hybrid blended learning, and Ramos and Taghap (2023), who highlighted teachers' adaptability in instructional practices and use of online tools as important components of effective blended learning.

Table 4

Difference in the Level of Readiness of Public Secondary Teachers on Blended Learning in the area of Availability of Resources when grouped according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	86	78.67	3024.500	0.802	0.05	Not Significant
	Older	72	80.49				
Sex	Male	71	85.72	2647.000	0.121	0.05	Not Significant
	Female	87	74.43				



Highest Educational Attainment	Lower	95	76.25	2683.500	0.271	Not Significant
	Higher	63	84.40			
Length of Service	Shorter	83	79.24	3090.000	0.940	Not Significant
	Longer	75	79.79			

Table 4 presents the difference in the level of readiness of public secondary teachers in blended learning in terms of availability of resources when grouped according to age, sex, highest educational attainment, and length of service. The Mann–Whitney U test revealed no significant differences in readiness according to age ($p = 0.802$), sex ($p = 0.121$), educational attainment ($p = 0.271$), or length of service ($p = 0.940$), as all p -values exceeded the 0.05 significance level. Thus, the null hypothesis was accepted for all variables, indicating that teachers' readiness in terms of resource availability is comparable across the different demographic and professional groups.

The findings suggest that readiness related to the availability of resources does not significantly vary according to teachers' age, sex, educational attainment, or length of service. This indicates that readiness may be influenced more by relevant competencies, self-efficacy, access to support, and the ability to utilize available resources than by demographic or professional characteristics. This is consistent with Lujero (2025), who emphasized the role of teacher competencies and self-efficacy in hybrid blended learning, and Ramos and Taghap (2023), who highlighted teachers' ability to use online tools and adapt instructional practices as important factors in blended learning.

Table 5

Difference in the Level of Readiness of Public Secondary Teachers on Blended Learning in the area of Facilitated Learning when grouped according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	86	74.87	2697.500	0.162	0.05	Not Significant
	Older	72	85.03				
Sex	Male	71	78.87	3043.500	0.874	0.05	Not Significant
	Female	87	80.02				
Highest Educational Attainment	Lower	95	80.74	2874.500	0.673	0.05	Not Significant
	Higher	63	77.63				
Length of Service	Shorter	83	72.65	2544.000	0.046	0.05	Significant
	Longer	75	87.08				

Table 5 presents the difference in the level of readiness of public secondary teachers in blended learning in terms of facilitated learning when grouped according to age, sex, highest educational attainment, and length of service. The Mann–Whitney U test revealed no significant differences in readiness according to age ($p = 0.162$), sex ($p = 0.874$), and educational attainment ($p = 0.673$), as all p -values exceeded the 0.05 significance level. However, a significant difference was found according to length of service ($p = 0.046$), with longer-serving teachers obtaining a higher mean rank (87.08) than those with shorter service (72.65). Thus, the null hypothesis was accepted for age, sex, and educational attainment but rejected for length of service.



The findings indicate that teachers' readiness for facilitated learning is generally comparable across age, sex, and educational attainment, while length of service is associated with a significant difference in readiness. The higher mean rank among longer-serving teachers suggests that accumulated teaching experience may contribute to greater preparedness for facilitating blended learning. This finding is consistent with Graham et al. (2019), who emphasized the importance of teachers' knowledge, skills, and preparedness for blended instruction, and Short et al. (2021), who highlighted teacher preparation and professional development as important factors in developing readiness for blended learning.

Comparative Analysis in the Level of Difficulties Encountered by Public Secondary Teachers on Blended Learning in the areas of Time Management, Communication, Availability of Resources, and Facilitated Learning when grouped according to variables Age, Sex, Highest Educational Attainment, and Length of Service

Table 6

Difference in the Degree of Challenges Encountered by Public Secondary Teachers on Blended Learning in the area of Time Management when grouped according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	86	80.15	3040.000	0.844	0.05	Not Significant
	Older	72	78.72				
Sex	Male	71	80.56	3013.500	0.792		Not Significant
	Female	87	78.64				
Highest Educational Attainment	Lower	95	81.59	2793.500	0.477		Not Significant
	Higher	63	76.34				
Length of Service	Shorter	83	77.62	2956.500	0.584		Not Significant
	Longer	75	81.58				

Table 6 presents the difference in the level of difficulties encountered by public secondary teachers in blended learning in terms of time management when grouped according to age, sex, highest educational attainment, and length of service. The Mann-Whitney U test revealed no significant differences according to age ($p = 0.844$), sex ($p = 0.792$), educational attainment ($p = 0.477$), and length of service ($p = 0.584$), as all p-values exceeded the 0.05 significance level. Thus, the null hypothesis was accepted for all variables, indicating that teachers experience comparable difficulties in managing time regardless of their demographic and professional characteristics.

The findings suggest that age, sex, educational attainment, and length of service do not significantly determine the difficulties teachers encounter in managing time during blended learning. This indicates that time-management challenges may be common across teachers and may be addressed through equitable support, capacity-building, and professional development programs. The findings are supported by Allado et al. (2025), who reported no significant differences in teachers' difficulties across demographic and academic variables, and Short et al. (2021), who emphasized teacher preparation and professional development in addressing challenges in K-12 blended learning.

Table 7

Difference in the Level of Challenges Encountered by Public Secondary Teachers on Blended Learning in the area of Communication when grouped according to variables



Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	86	73.94	2618.000	0.094	0.05	Not Significant
	Older	72	86.14				
Sex	Male	71	75.44	2800.000	0.312		Not Significant
	Female	87	82.82				
Highest Educational Attainment	Lower	95	80.06	2939.000	0.849		Not Significant
	Higher	63	78.65				
Length of Service	Shorter	83	73.84	2642.500	0.101		Not Significant
	Longer	75	85.77				

Table 7 presents the difference in the level of difficulties encountered by public secondary teachers in blended learning in terms of communication when grouped according to age, sex, highest educational attainment, and length of service. The Mann–Whitney U test revealed no significant differences according to age ($p = 0.094$), sex ($p = 0.312$), educational attainment ($p = 0.849$), and length of service ($p = 0.101$), as all p -values exceeded the 0.05 significance level. Thus, the null hypothesis was accepted for all variables, indicating that teachers experience comparable communication difficulties regardless of their demographic and professional characteristics.

The findings suggest that age, sex, educational attainment, and length of service do not significantly determine the communication difficulties encountered by teachers in blended learning. This indicates that challenges may be influenced more by technological, pedagogical, learner-related, and institutional factors than by teachers' demographic or professional characteristics. The findings are consistent with Caganan and Buenvinida (2021), who reported common adjustments and challenges among Filipino teachers in alternative learning delivery, and Rasheed et al. (2020), who identified technological, pedagogical, and learner-related factors as major sources of difficulties in blended learning.

Table 8

Difference in the Level of Challenges Encountered by Public Secondary Teachers on Blended Learning in the area of Availability of Resources when grouped according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	86	74.96	2705.500	0.171	0.05	Not Significant
	Older	72	84.92				
Sex	Male	71	78.57	3022.500	0.817		Not Significant
	Female	87	80.26				
Highest Educational Attainment	Lower	95	81.71	2783.000	0.455		Not Significant
	Higher	63	76.17				
Length of Service	Shorter	83	71.14	2419.000	0.015		Significant



Table 8 presents the difference in the level of challenges encountered by public secondary teachers in blended learning in terms of availability of resources when grouped according to age, sex, highest educational attainment, and length of service. The Mann–Whitney U test revealed no significant differences according to age ($p = 0.171$), sex ($p = 0.817$), and educational attainment ($p = 0.455$), as all p -values exceeded the 0.05 significance level. However, a significant difference was found according to length of service ($p = 0.015$), with longer-serving teachers obtaining a higher mean rank (88.75) than those with shorter service (71.14). Thus, the null hypothesis was accepted for age, sex, and educational attainment but rejected for length of service.

The findings indicate that teachers' challenges regarding resource availability do not significantly vary according to age, sex, or educational attainment, but differ significantly according to length of service. The higher mean rank among longer-serving teachers suggests that professional experience may influence how teachers perceive and adapt to resource-related demands in blended learning. This finding is consistent with Lujero (2025), who emphasized the importance of teachers' competencies and self-efficacy in hybrid blended learning, and Caganan and Buenvinida (2021), who documented the adjustments and challenges experienced by Filipino teachers in alternative learning delivery modalities.

Table 9

Difference in the Level of Difficulties Encountered by Public Secondary Teachers on Blended Learning in the area of Facilitated Learning when grouped according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	86	76.73	2858.000	0.404	0.05	Not Significant
	Older	72	82.81				
Sex	Male	71	83.92	2774.500	0.270		Not Significant
	Female	87	75.89				
Highest Educational Attainment	Lower	95	75.46	2609.000	0.171		Not Significant
	Higher	63	85.59				
Length of Service	Shorter	83	76.15	2834.500	0.331		Not Significant
	Longer	75	83.21				

Table 9 presents the difference in the level of difficulties encountered by public secondary teachers in blended learning in terms of facilitated learning when grouped according to age, sex, highest educational attainment, and length of service. The Mann–Whitney U test revealed no significant differences according to age ($p = 0.404$), sex ($p = 0.270$), educational attainment ($p = 0.171$), or length of service ($p = 0.331$), as all p -values exceeded the 0.05 significance level. Thus, the null hypothesis was accepted for all variables, indicating that teachers experience comparable difficulties in facilitated learning regardless of their demographic and professional characteristics.

The findings suggest that age, sex, educational attainment, and length of service do not significantly determine the difficulties teachers encounter in facilitating blended learning. This indicates that challenges may be more closely related to technological, pedagogical, learner-related, and institutional factors than to teachers' demographic or professional characteristics. The findings are consistent with Rasheed et al. (2020), who identified technological, pedagogical, and learner-related factors a



major sources of challenges in blended learning, and Short et al. (2021), who emphasized teacher preparation, professional development, and institutional support in addressing challenges in K–12 blended learning environments.

Comparative Analysis in the Extent of Compliance of Public Secondary Teachers on Blended Learning in the areas of Time Management, Communication, Availability of Resources, and Facilitated Learning when grouped according to variables Age, Sex, Highest Educational Attainment, and Length of Service

Table 10

Difference in the Extent of Compliance of Public Secondary Teachers on Blended Learning in the area of Time Management when grouped according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	86	80.13	3041.500	0.848	0.05	Not Significant
	Older	72	78.74				
Sex	Male	71	80.25	3035.000	0.851	0.05	Not Significant
	Female	87	78.89				
Highest Educational Attainment	Lower	95	82.75	2684.000	0.271	0.05	Not Significant
	Higher	63	74.60				
Length of Service	Shorter	83	75.97	2819.500	0.305	0.05	Not Significant
	Longer	75	83.41				

Table 10 presents the difference in the extent of compliance of public secondary teachers in blended learning in terms of time management when grouped according to age, sex, highest educational attainment, and length of service. The Mann–Whitney U test revealed no significant differences according to age ($p = 0.848$), sex ($p = 0.851$), educational attainment ($p = 0.271$), or length of service ($p = 0.305$), as all p-values exceeded the 0.05 significance level. Thus, the null hypothesis was accepted for all variables, indicating that teachers' compliance in time management is comparable across demographic and professional groups.

The findings suggest that age, sex, educational attainment, and length of service do not significantly influence teachers' compliance with time-management practices in blended learning. This indicates that compliance may be shaped more by common instructional demands and contextual factors than by demographic or professional characteristics. The finding is consistent with Rasheed et al. (2020), who identified technological, pedagogical, and learner-related factors as major sources of blended learning challenges rather than teachers' demographic characteristics. Therefore, equitable support and professional development may be provided to all teachers to strengthen compliance with blended learning requirements.

Table 11

Difference in the Extent of Compliance of Public Secondary Teachers on Blended Learning in the area of Communication when grouped according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	86	73.41	2572.000	0.066	0.05	Not Significant



Sex	Older	72	86.78	2790.500	0.295	Not Significant
	Male	71	75.30			
	Female	87	82.93			
Highest Educational Attainment	Lower	95	83.22	2639.500	0.207	Not Significant
	Higher	63	73.90			
Length of Service	Shorter	83	71.61	2458.000	0.022	Significant
	Longer	75	88.23			

Table 11 presents the difference in the extent of compliance of public secondary teachers in blended learning in terms of communication when grouped according to age, sex, highest educational attainment, and length of service. The Mann–Whitney U test revealed no significant differences according to age ($p = 0.066$), sex ($p = 0.295$), and educational attainment ($p = 0.207$), as all p -values exceeded the 0.05 significance level. However, a significant difference was found according to length of service ($p = 0.022$), with longer-serving teachers obtaining a higher mean rank (88.23) than those with shorter service (71.61). Thus, the null hypothesis was accepted for age, sex, and educational attainment but rejected for length of service.

The findings indicate that teachers' compliance in communication does not significantly vary according to age, sex, or educational attainment but differs significantly according to length of service. The higher mean rank among longer-serving teachers suggests that professional experience may influence teachers' adaptation to communication demands in blended learning. This finding is consistent with Lujero (2025) and Caganan and Buenvinida (2021), who emphasized the roles of teacher competencies, self-efficacy, and adaptability in implementing blended and alternative learning modalities.

Table 12

Difference in the Extent of Compliance of Public Secondary Teachers on Blended Learning in the area of Availability of Resources when grouped according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	86	78.74	3030.500	0.818	0.05	Not Significant
	Older	72	80.41				
Sex	Male	71	86.04	2624.000	0.103	0.05	Not Significant
	Female	87	74.16				
Highest Educational Attainment	Lower	95	77.63	2815.000	0.526	0.05	Not Significant
	Higher	63	82.32				
Length of Service	Shorter	83	79.68	3097.500	0.958	0.05	Not Significant
	Longer	75	79.30				

Table 12 presents the difference in the extent of compliance of public secondary teachers in blended learning in terms of availability of resources when grouped according to age, sex, highest educational attainment, and length of service. The Mann–



Whitney U test revealed no significant differences according to age ($p = 0.818$), sex ($p = 0.103$), educational attainment ($p = 0.526$), or length of service ($p = 0.958$), as all p -values exceeded the 0.05 significance level. Thus, the null hypothesis was accepted for all variables, indicating that teachers' compliance in resource availability is comparable across demographic and professional groups.

The findings suggest that age, sex, educational attainment, and length of service do not significantly influence teachers' compliance regarding the availability of resources in blended learning. This indicates that common instructional and contextual demands may have a greater influence on teachers' compliance than their individual demographic or professional characteristics. The finding is supported by Tubola and Moyani (2025), who reported no significant differences in the problems encountered by Filipino teachers in blended learning across relevant teacher characteristics.

Table 13

Difference in the Extent of Compliance of Public Secondary Teachers on Blended Learning in the area of Facilitated Learning when grouped according to variables

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	86	75.06	2714.500	0.180	0.05	Not Significant
	Older	72	84.80				
Sex	Male	71	79.35	3078.000	0.971		Not Significant
	Female	87	79.62				
Highest Educational Attainment	Lower	95	78.70	2916.500	0.786		Not Significant
	Higher	63	80.71				
Length of Service	Shorter	83	73.98	2654.000	0.108		Not Significant
	Longer	75	85.61				

Table 13 presents the difference in the extent of compliance of public secondary teachers in blended learning in terms of facilitated learning when grouped according to age, sex, highest educational attainment, and length of service. The Mann–Whitney U test revealed no significant differences according to age ($p = 0.180$), sex ($p = 0.971$), educational attainment ($p = 0.786$), or length of service ($p = 0.108$), as all p -values exceeded the 0.05 significance level. Thus, the null hypothesis was accepted for all variables, indicating that teachers' compliance in facilitated learning is comparable across demographic and professional groups.

The findings suggest that the degree of challenges and compliance related to facilitated learning does not significantly vary according to age, sex, educational attainment, or length of service. This indicates that teachers' experiences may be more closely associated with the common pedagogical, technological, and instructional demands of blended learning than with individual demographic or professional characteristics. This finding is consistent with Graham et al. (2019), who emphasized teachers' competencies and preparedness for blended instruction, and Short et al. (2021), who highlighted teacher preparation and professional development as important in addressing blended teaching challenges.

CONCLUSION

The findings showed that the respondents were a diverse group of public secondary teachers in terms of age, sex, highest educational attainment, and length of service, with younger teachers, females, bachelor's degree holders, and those with shorter teaching experience slightly predominating. Overall, the teachers demonstrated a high level of readiness, high level of difficulties,



and great extent of compliance with blended learning across time management, communication, availability of resources, and facilitated learning. Despite being highly prepared and generally compliant, teachers continued to encounter common challenges in managing learning materials, communicating with learners and parents, accessing resources, and providing adequate learner support. Readiness, difficulties, and compliance generally remained consistent across demographic and professional groups, although significant differences were identified in specific areas. Readiness significantly differed in communication according to age and in communication and facilitated learning according to length of service, while difficulties significantly differed in communication and availability of resources according to length of service. For compliance, a significant difference was found only in communication when grouped according to length of service. Overall, the findings indicate that teachers were generally prepared and committed to implementing blended learning despite shared challenges, while age and professional experience appeared to influence certain aspects of communication, facilitation, resource-related difficulties, and compliance.

RECOMMENDATIONS

In light of the findings and conclusions, school administrators and education authorities should sustain and strengthen institutional support for blended learning through regular monitoring, instructional supervision, coaching, consultation, and needs-based professional development. Support programs should consider teachers' length of service by providing mentoring for beginning teachers and opportunities for experienced teachers to update and share their practices. Continuous training should focus on time management, effective communication, learner-centered facilitation, digital resource utilization, learner engagement, and assessment strategies, complemented by hands-on workshops, peer learning, and follow-up activities. Schools should establish clear communication protocols, strengthen access to and equitable distribution of instructional and technological resources, and provide differentiated coaching to address teachers' specific needs. Professional learning communities and peer mentoring should also be strengthened to promote collaboration, resource sharing, and exchange of effective blended learning practices. Parents, local government units, and other stakeholders should be engaged to support instructional resources, learner participation, communication, and technological needs. Furthermore, the proposed Development Plan for Enhancing Teachers' Readiness in Blended Learning should be implemented, prioritizing professional development, resource enhancement, communication, mentoring, stakeholder collaboration, and continuous monitoring and evaluation, with funding sourced from allowable school and external support mechanisms in accordance with existing policies and regulations. Finally, schools should establish a systematic monitoring and evaluation mechanism to assess the effectiveness of interventions and continuously improve programs based on teachers' evolving needs.

Conflict of Interest

The authors declare the absence of any conflict of interest that could have influenced the content or conclusions of this paper. They affirm that no financial, personal, or professional relationships with other individuals or organizations have compromised the objectivity, integrity, or impartiality of the research work. As a final point, no external parties influenced the study design, data collection, analysis, or interpretation.

REFERENCES

- Allado, M., Hermosura, W., & Bautista, M. (2025). Challenges encountered by tertiary teachers in the utilization of different learning modalities. *International Multidisciplinary Journal of Research for Innovation, Sustainability, and Excellence (IMJRISE)*, 2(6), 717–731. <https://doi.org/10.5281/zenodo.15674701>
- Alvarez, A. V., Jr. (2020). Learning from the problems and challenges in blended learning: Basis for faculty development and program enhancement. *Asian Journal of Distance Education*, 15(2), 112–132. <https://doi.org/10.5281/zenodo.4292631>
- Ali, R. (2025). How challenging? Barriers for teachers in institutional implementation of blended learning. *Open Learning: The Journal of Open, Distance and e-Learning*, 40(3), 324–341. <https://doi.org/10.1080/02680513.2024.2342922>
- Ali, R., & Georgiou, H. (2025). A process for institutional adoption and diffusion of blended learning in higher education. *Higher Education Policy*, 38, 523–544. <https://doi.org/10.1057/s41307-024-00359-y>
- Anoba, J. L. D., & Cahapay, M. B. (2020). The readiness of teachers on blended learning transition for post-COVID-19 period: An assessment using parallel mixed method. *PUPIL: International Journal of Teaching, Education and Learning*, 4(2), 295–316. <https://doi.org/10.20319/pijtel.2020.42.295316>
- Antwi-Boampong, A. (2020). Towards a faculty blended learning adoption model for higher education. *Education and Information Technologies*, 25(3), 1639–1662. <https://doi.org/10.1007/s10639-019-10019-z>
- Antwi-Boampong, A., & Anthony, B., Jr. (2022). Towards an institutional blended learning adoption model for higher education institutions. *Technology, Knowledge and Learning*, 27, 765–784. <https://doi.org/10.1007/s10758-021-09553-4>



- Archibald, D. E., Graham, C. R., & Larsen, R. (2021). Validating a blended teaching readiness instrument for primary/secondary preservice teachers. *British Journal of Educational Technology*, 52(2), 536–551. <https://doi.org/10.1111/bjet.13060>
- Ashraf, M. A., Tsegay, S. M., & Meijia, Y. (2021). Blended learning for diverse classrooms: Qualitative experimental study with in-service teachers. *SAGE Open*, 11(3), 1–14. <https://doi.org/10.1177/21582440211030623>
- Ashraf, M. A., Yang, M., Zhang, Y., Denden, M., Tlili, A., Liu, J., Huang, R., & Burgos, D. (2021). A systematic review of systematic reviews on blended learning: Trends, gaps and future directions. *Psychology Research and Behavior Management*, 14, 1525–1541. <https://doi.org/10.2147/PRBM.S331741>
- Banihashem, S. K., Noroozi, O., den Brok, P., Biemans, H. J. A., & Taghizadeh Kerman, N. (2023). Modeling teachers' and students' attitudes, emotions, and perceptions in blended education: Towards post-pandemic education. *International Journal of Management Education*, 21(3), 100803. <https://doi.org/10.1016/j.ijme.2023.100803>
- Bautista, A. P., Jr., Bleza, D. G., Buhain, C. B., & Balibrea, D. M. (2021). School support received and the challenges encountered in distance learning education by Filipino teachers during the COVID-19 pandemic. *International Journal of Learning, Teaching and Educational Research*, 20(6), 283–304. <https://doi.org/10.26803/ijlter.20.6.19>
- Blaine, A. M. (2019). Interaction and presence in the virtual classroom: An analysis of the perceptions of students and teachers in online and blended Advanced Placement courses. *Computers & Education*, 132, 31–43. <https://doi.org/10.1016/j.compedu.2019.01.004>
- Bokolo Anthony Jnr., A. (2022). An exploratory study on academic staff perception towards blended learning in higher education. *Education and Information Technologies*, 27, 3107–3133. <https://doi.org/10.1007/s10639-021-10705-x>
- Cabardo, J. R. O., Cabardo, C. J. O., & Cabardo-Mabida, S. J. O. (2022). Challenges and mechanisms of teachers in the implementation of modular distance learning in the Philippines: A phenomenological study. *Sapientia: International Journal of Interdisciplinary Studies*, 3(1). <https://doi.org/10.51798/sijis.v3i1.223>
- Caganan, R. G., & Buenvenida, L. P. (2021). Lived experiences of senior high school teachers on distance learning delivery modalities: A basis for curriculum planning model. *International Journal of Management, Entrepreneurship, Social Science and Humanities*, 4(2), 118–128. <https://doi.org/10.31098/ijmesh.v4i2.668>
- Cajucom, E., Lopez, I. N., Valdez, J., Villanueva, J., Balonquita, W., & Sondag, J. A. (2023). Readiness in adopting a blended learning approach in science: Challenges encountered and breakthroughs. *Philippine E-Journals*. <https://www.ejournals.ph/article.php?id=20774>
- Can, H. C., Zorba, E., & Türksoy Işım, A. (2024). The effect of blended learning on 21st-century skills and academic success in education of physical education teachers: A mixed method research. *Teaching and Teacher Education*, 145, 104614. <https://doi.org/10.1016/j.tate.2024.104614>
- Casingal, C. P. (2025). Competencies and professional development needs of Philippine Alternative Learning System (ALS) teachers: Strategies, challenges, and learning facilitation insights. *Southeast Asian Journal of Agriculture and Allied Sciences*, 5(1), 1–20. <https://doi.org/10.63943/sajaas.vol5iss1art64pp1-20>
- Chatto, F. D. M. (2025). Enhancing timeliness and efficiency in quarterly report submissions: Implementation of an online reporting system in education. *Asian Journal of Education and Social Studies*, 51(3), 305–314. <https://doi.org/10.9734/ajess/2025/v51i31827>
- Çemçem, G. D., Korkmaz, Ö., & Kukul, V. (2024). Readiness of teachers for blended learning: A scale development study. *Education and Information Technologies*, 29, 23631–23655. <https://doi.org/10.1007/s10639-024-12777-x>
- Cheng, Z., Yang, F., & Zhu, C. (2026). Understanding teacher workload in blended learning: Insights through the Job Demands-Resources model. *Electronic Journal of e-Learning*, 24(1), 125–137. <https://doi.org/10.34190/ejel.24.1.4465>
- Dalusong, M. T. B., Dones, V., III, & Grageda, M. E. (2025). Instructional quality in a blended teaching and learning approach and its dimensions: A literature review. *NRCP Research Journal*, 24(2), 48–64. <https://doi.org/10.63225/nrcp.rj.2025.0031>
- Dangle, Y. R. P., & Sumaoang, J. D. (2020). The implementation of modular distance learning in the Philippine secondary public schools. *3rd International Conference on Advanced Research in Science, Technology and Engineering*. <https://www.sciepub.com/reference/421292>
- Deng, L., Zhou, Y., Chan, C.-K., Bai, B., & Yuen, A. H. K. (2025). Examining teachers' readiness for blended teaching with a revised model and instrument. *Journal of Research on Technology in Education*. <https://doi.org/10.1080/15391523.2025.2547166>
- De Las Peñas, M. L. A. N., Aberin, M. A. Q., Garciano, A., Mallari, J. C. F., Sarmiento, J. F., Tolentino, M. A. C., & Verzosa, D. M. (2022). Deployment of mathematical resources to a Philippine high school through a community LTE network. *Mathematics Faculty Publications*, 126–140.
- Department of Education. (2020). *DepEd Order No. 017, s. 2020: Guidelines for the provision of learning resources and implementation of the basic education learning continuity plan*. Department of Education.
- Department of Education. (2024). *DepEd Order No. 012, s. 2024: Amendment to DepEd Order No. 010, s. 2024 (Policy guidelines on the implementation of the MATATAG curriculum)*. Department of Education.
- Department of Education. (2025). *DepEd Order No. 006, s. 2025: Guidelines on the streamlining of school forms and reports accomplished by teachers*. Department of Education.
- Department of Education, & Department of Health. (2021). *DepEd-DOH Joint Memorandum Circular No. 001, s. 2021: Operational guidelines on the implementation of limited face-to-face learning modality for basic education*. Department of Education.
- Fernandez, A. (2023). Challenges to blended modality and learning experiences towards instructional effectiveness in public elementary school. *Psychology and Education: A Multidisciplinary Journal*, 11(6). <https://ejournals.ph/article.php?id=21583>