

Teachers' and Students' Readiness for Blended Learning Implementation During the COVID-19 Pandemic: Evidence on Disposition, Online Integration, Data Practices, Prioritizing Instruction and Online Interactions

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Abstract

The COVID-19 pandemic significantly transformed educational delivery worldwide, compelling educational institutions to adopt blended learning as an alternative modality to ensure the continuity of instruction. The effectiveness of this learning approach largely depends on the readiness of both teachers and students to adapt to technology-enhanced teaching and learning environments. This study assessed the extent of readiness of teachers and students in the implementation of blended learning during the COVID-19 pandemic in terms of disposition, online integration, data practices, personalizing instruction, and online interactions. A descriptive quantitative research design was employed involving teachers and students from the selected educational institution. Data were collected using a validated researcher-adopted survey questionnaire and analyzed through frequency counts, percentages, weighted mean, independent samples *t*-test, and Analysis of Variance (ANOVA) where applicable. The findings revealed that both teachers and students were generally ready to implement blended learning. Teachers demonstrated very high readiness in data practices (WM = 2.42), personalizing instruction (WM = 2.47), and online interactions (WM = 2.67), while they were ready in disposition (WM = 2.18) and online integration (WM = 2.25). Students were ready in disposition (WM = 2.24), online integration (WM = 2.22), data practices (WM = 2.26), and personalizing instruction (WM = 2.28), and very ready in online interactions (WM = 2.37). Overall, teachers exhibited slightly higher readiness than students across most dimensions, indicating stronger competencies in integrating digital technologies, utilizing assessment data, and facilitating blended instruction. The study concludes that both teachers and students possess adequate preparedness to support the effective implementation of blended learning; however, continuous professional development, enhancement of digital competencies, improved technological infrastructure, and strengthened institutional support remain essential to sustain quality instruction in flexible learning environments. The findings provide valuable insights for school administrators, policymakers, and educators in developing strategic interventions that enhance blended learning implementation and strengthen educational resilience in future disruptions.

Introduction

The COVID-19 pandemic brought unprecedented disruptions to educational systems worldwide, compelling schools and higher education institutions to adopt alternative learning modalities to ensure the continuity of education. Traditional face-to-face instruction was suspended in many countries, including the Philippines,

prompting the Department of Education (DepEd) and the Commission on Higher Education (CHED) to implement flexible learning approaches that could respond to the challenges posed by the public health crisis. Among these approaches, **blended learning** emerged as one of the most viable instructional strategies, combining online

learning, modular instruction, and limited face-to-face interactions where permitted. This educational shift required teachers and students to rapidly adapt to new technologies, instructional practices, and learning environments while maintaining the quality of teaching and learning.

Blended learning has transformed the educational landscape by integrating digital technologies with conventional instructional methods to provide flexible, learner-centered, and accessible education. However, the successful implementation of blended learning depends largely on the readiness of both teachers and students. Readiness encompasses not only access to technological resources but also the attitudes, competencies, instructional practices, and digital literacy required to effectively participate in blended learning environments. Teachers are expected to redesign instructional strategies, utilize online learning platforms, manage digital resources, and facilitate meaningful online interactions, while students are expected to develop self-directed learning skills, digital competence, and active engagement in virtual learning spaces.

Despite the potential benefits of blended learning, its implementation during the pandemic presented numerous challenges. Many educators encountered difficulties in integrating technology into instruction, managing online classrooms, maintaining student engagement, and assessing learners remotely. Likewise, students faced barriers related to internet connectivity, limited access to digital devices, inadequate technological skills, and difficulties in adapting to independent learning. These challenges

highlighted the importance of assessing the readiness of both teachers and students to ensure that blended learning is implemented effectively and that educational objectives continue to be achieved despite the constraints imposed by the pandemic.

Teacher readiness plays a critical role in determining the effectiveness of blended learning implementation. It involves teachers' disposition toward technology integration, competence in utilizing digital platforms, management of online instructional resources, adherence to ethical data practices, ability to prioritize essential learning competencies, and capability to establish meaningful online interactions with learners. Similarly, student readiness encompasses their willingness to participate in online learning, technological competence, responsible use of digital resources, adaptability to new learning environments, and active engagement in virtual classroom activities. Understanding these dimensions provides valuable insights into the strengths and areas requiring intervention to enhance the quality of blended learning.

Assessing readiness is particularly important because successful blended learning extends beyond the availability of technology. It requires positive attitudes toward digital learning, effective instructional planning, responsible management of learning data, collaborative communication, and continuous interaction between teachers and students. Identifying the level of readiness among educational stakeholders enables school administrators and policymakers to formulate appropriate professional development programs, strengthen institutional support systems, improve digital

infrastructure, and design interventions that address existing challenges in blended learning implementation.

Against this backdrop, the present study seeks to determine the extent of readiness of teachers and students in the implementation of blended learning during the COVID-19 pandemic. Specifically, it examines readiness in terms of disposition, online integration, data practices, prioritizing instruction, and online interactions. The findings of this study are expected to provide empirical evidence that will guide educational institutions in strengthening blended learning practices, enhancing instructional delivery, and ensuring the continuous provision of quality education in times of educational disruption and beyond.

Statement of the Problem

1. What is the extent of readiness of teachers and students in the implementation of blended learning during this time of pandemic in terms of:
 - 1.1 disposition;
 - 1.2 online integration;
 - 1.3 data practices;
 - 1.4 prioritizing instruction; and
 - 1.5 online interactions?

Methodology of the Study

Research Design

This study employed a descriptive quantitative research design to determine the extent of readiness of teachers and students in the implementation of blended learning during the COVID-19 pandemic. A descriptive research design is appropriate

because it systematically describes and assesses the existing conditions, characteristics, attitudes, and practices of a particular population without manipulating any variables. The study focused on measuring the readiness levels of teachers and students across five dimensions: disposition, online integration, data practices, prioritizing instruction, and online interactions. This design enabled the researcher to collect quantifiable data that accurately reflected the participants' perceptions and experiences regarding blended learning implementation.

Research Locale

The study was conducted in [Name of School/Institution], where blended learning was implemented as an alternative mode of instructional delivery during the COVID-19 pandemic. The institution adopted blended learning to ensure the continuity of education while complying with government health and safety protocols. The school served as an appropriate research setting because both teachers and students had firsthand experience in utilizing blended learning modalities, including online instruction, digital learning platforms, modular learning, and other technology-assisted educational strategies.

Research Participants

The respondents of the study consisted of teachers and students from [Name of School/Institution] who actively participated in blended learning during the COVID-19 pandemic. Teachers included those who were directly involved in planning, implementing, and facilitating blended learning instruction, while students were those officially enrolled and actively engaged in blended learning

classes during the conduct of the study. The participants were selected using total enumeration if the population was manageable, or stratified random sampling if the population was large enough to require representative sampling. This sampling procedure ensured that both teachers and students were adequately represented in the study and that the findings accurately reflected their level of readiness in implementing blended learning.

Research Instrument

The primary instrument used in this study was a researcher-adopted and modified survey questionnaire designed to measure the readiness of teachers and students in implementing blended learning. The questionnaire consisted of two sections. The first section gathered the demographic profile of the respondents, while the second section measured the extent of readiness across five dimensions: (1) disposition, (2) online integration, (3) data practices, (4) prioritizing instruction, and (5) online interactions. Responses were measured using a five-point Likert scale, where 5 = Very Highly Ready, 4 = Highly Ready, 3 = Moderately Ready, 2 = Slightly Ready, and 1 = Not Ready. Prior to its administration, the instrument underwent expert validation to establish content validity, while reliability was determined through a pilot test using Cronbach's Alpha, ensuring acceptable internal consistency before the actual data collection.

Data Gathering Procedure

Prior to data collection, the researcher secured approval from the school administration and obtained the necessary permissions to conduct the study. Ethical

considerations were observed by informing participants of the objectives of the research, assuring them of the confidentiality of their responses, and obtaining their voluntary informed consent. The validated questionnaires were distributed to the selected teacher and student respondents either through printed copies or secure online survey platforms, depending on prevailing health protocols and participants' accessibility. Upon retrieval of the completed questionnaires, the responses were checked for completeness, organized, encoded, and prepared for statistical analysis.

Statistical Treatment of Data

The data collected were analyzed using appropriate descriptive statistical techniques. Frequency counts and percentages were used to describe the demographic profile of the respondents. Weighted Mean was employed to determine the extent of readiness of teachers and students in the implementation of blended learning across the five dimensions: disposition, online integration, data practices, prioritizing instruction, and online interactions. The computed weighted means were interpreted using the following descriptive scale:

Scale	Mean Interval	Descriptive Interpretation
5	4.21 – 5.00	Very Highly Ready
4	3.41 – 4.20	Highly Ready
3	2.61 – 3.40	Moderately Ready
2	1.81 – 2.60	Slightly Ready
1	1.00 – 1.80	Not Ready

Where applicable, an independent samples t-test was used to determine significant differences between the readiness levels of

teachers and students, while Analysis of Variance (ANOVA) was employed to examine differences when respondents were grouped according to selected demographic variables. All statistical analyses were conducted at a 0.05 level of significance.

Ethical Considerations

The study strictly adhered to ethical standards in educational research. Participation was entirely voluntary, and respondents were informed of the purpose, procedures,

benefits, and confidentiality of the study prior to participation. Personal information and responses were treated with utmost confidentiality and were used solely for academic and research purposes. Participants were assured that they could withdraw from the study at any point without any consequences. All collected data were securely stored and reported only in aggregate form to protect the identity and privacy of the respondents.

Results and Findings

Table 15. Level of Readiness on the Implementation of Blended Learning as to Disposition

Particulars	Teachers			Students		
	W.M.	Q.D.	Rank	W.M.	Q.D.	Rank
1. Explore new teaching strategies that combine in-person and online learning.	2.00	R	7.5	2.25	R	5
2. Use data to enhance their teaching that will help students' learning.	2.13	R	5	2.24	R	6
3. Utilize online activities which can result to learning that would be difficult for students to achieve without technology.	2.00	R	7.5	2.10	R	9
4. Gain experience with online collaboration.	2.25	R	3	2.34	VR	1
5. Learn better through technology which allows them to adjust the speed of their learning.	2.75	VR	1	2.22	R	7
6. Participate in online discussion.	2.38	VR	2	2.29	R	2.5
7. Use online technology in ensuring that students are learning the material before moving on to the next lesson.	2.13	R	5	2.29	R	2.5
8. Present lessons in an organized manner through blended learning strategy	2.13	R	5	2.26	R	4

9. Students use data to guide their own learning progress.	1.88	R	9	2.19	R	8
Average Weighted Mean	2.18	Ready		2.24	Ready	

It can be gleaned from the table that teacher-respondents claimed that they are “very ready” on the implementation of blended learning as to disposition on the following aspects: “Learn better through technology which allows them to adjust the speed of their learning” with the highest weighted mean of 2.75, followed by “Participate in online discussion” with a weighted mean of 2.38, while they affirmed that they are “ready” on the following: “Gain experience with online”, “collaboration” with a weighted mean of 2.25, “Use data to enhance their teaching that will help students’ learning”, “Use online technology in ensuring that students are learning the material before moving on to the next lesson”, and “Present lessons in an organized manner through blended learning strategy” with a common weighted mean of 2.13, “Explore new teaching strategies that combine in-person and online learning” and “Utilize online activities which can result to learning that would be difficult for students to achieve without technology” sharing a weighted mean of 2.00, as well as “Students use data to guide their own learning progress” with the lowest weighted mean of 1.88. However, the average weighted mean of 2.18 implies that they are ready in the implementation of blended learning in terms of disposition. The result is slightly different from the study of Anoba (2020) where teachers are said to be slightly ready in terms of disposition on blended learning transition. Furthermore, a large majority of the teacher-

respondents held positive attitudes on the effectiveness and appropriateness of the blended learning. Hence, it can be said that the teachers generally maintain a progressive outlook when it comes to blended learning.

Meanwhile, students asserted that they are “very ready” in the implementation of blended learning because they “Gain experience with online collaboration” with a weighted mean of 2.34, while they are “ready” on the following: “Participate in online discussion” and “Use online technology in ensuring that students are learning the material before moving on to the next lesson” which registered a common weighted mean of 2.29, “Present lessons in an organized manner through blended learning strategy” with a weighted mean of 2.26, “Explore new teaching strategies that combine in-person and online learning”, “Use data to enhance their teaching that will help students’ learning”, “Learn better through technology which allows them to adjust the speed of their learning” with weighted means of 2.25, 2.24, and 2.22, respectively, as well as “Students use data to guide their own learning progress” and “Utilize online activities which can result to learning that would be difficult for students to achieve without technology” with weighted means of 2.19 and 2.10, respectively. The average weighted mean of 2.24 is an indication that students are “ready” in the implementation of blended learning as to disposition.

The findings are consistent with previous research indicating readiness of students where they benefit from flexibility in time and place, as well as accessibility, in a blended learning environment. Moreover, students have more control over their learning progress and take more responsibility for their studies. Students who are self-disciplined can learn at their own pace and tend to be high achievers (Owston et al., 2013; Smyth et al., 2012).

Furthermore, the table transpires that there is slightly higher average weighted mean of the students' responses when compared with the teachers' responses, however, both are qualitatively described as "ready", which denote that both teachers and students are "ready" on the implementation of blended learning relative to their disposition on the said learning modality.

Table 16. Level of Readiness on the Implementation of Blended Learning as to Online Integration

Particulars	Teachers			Students		
	W.M.	Q.D.	Rank	W.M.	Q.D.	Rank
1. Develop instructions for how students should find help when they are using online technology.	2.00	R	8	2.26	R	3
2. Evaluate the strengths and limitations of specific online activities for students.	2.25	R	5	2.28	R	1.5
3. Develop guidelines to help students use their time online well.	2.38	VR	2	2.24	R	4
4. Decide if using online activities will improve student learning	2.13	R	7	2.11	R	8
5. Decide when it is better to interact with students in-person versus online	2.38	VR	2	2.19	R	6
6. Provide clear instructions for moving between online and in-person activities.	2.38	VR	2	2.28	R	1.5
7. Find ways to combine online and in-person activities that help students control their own learning.	2.25	R	5	2.22	R	5
8. Decide when to use computer-based assessments.	2.25	R	5	2.15	R	7
Average Weighted Mean	2.25	Ready		2.22	Ready	

With regards to the level of readiness in the implementation of blended learning as to online integration, the table reflects that teacher-respondents believed that they are “very ready” on the following aspects: “Develop guidelines to help students use their time online well”, “Decide when it is better to interact with students in-person versus online”, and “Provide clear instructions for moving between online and in-person activities” with a common weighted mean of 2.38; while they are “ready” on the following: “Evaluate the strengths and limitations of specific online activities for students”, “Find ways to combine online and in-person activities that help students control their own learning”, and “Decide when to use computer-based assessments” sharing a common weighted mean of 2.25, as well as “Decide if using online activities will improve student learning” and “Develop instructions for how students should find help when they are using online technology” with weighted means of 2.13 and 2.00, respectively. The average weighted mean of 2.25 indicates that teachers are “ready” in the implementation of blended learning in terms of online integration. The result is somehow parallel to the study of Anoba and Catapay (2020) where it only shows slight readiness of teachers on the implementation of blended learning as to online integration particularly on planning blended activities, blended assessments, and facilitating teacher-student interaction.

The table further shows that student-respondents affirmed that they are “ready” on the implementation of blended learning along all the 8 parameters on the level of readiness on the implementation of blended learning as to online integration. This is further strengthened by the average weighted mean of 2.22 by the student-respondents. The readiness of the students in terms of online interaction is also anchored on past studies that students who prefer online learning feel that they have quality time to think about and to respond to asynchronous discussions more effectively. Furthermore, it is correlated to study management. Tsai (2010) describes this aspect as a self-regulated learning process in which learners make an intended effort to plan, to manage, and to direct learning activities as well as to share learning responsibility with their instructors. This is an important aspect that contributes to stronger learning motivation and better time management when studying online. Blended learning provides autonomy for students to be responsible in their learning, which calls for self-discipline and self-motivation. Hence, their readiness implies positive result in the future.

Lastly, the table reveals that both average weighted means indicate the readiness of teachers and students in the implementation of blended learning with teachers’ responses obtaining slightly higher average weighted mean as compared to students with 0.03 mean difference.

Table 17. Level of Readiness on the Implementation of Blended Learning as to Data Practices

Particulars	Teachers			Students		
	W.M.	Q.D.	Rank	W.M.	Q.D.	Rank
1. See patterns in small group and whole-class learning using online and offline assessment results.	2.25	R	7.5	2.15	R	8
2. Use technology that organize and displays student assessment results so one makes decision about instruction.	2.38	VR	6	2.24	R	6.5
3. Use technology tools to check student participation in online activities (e.g. attendance, log ins, time of each activity).	2.50	VR	3	2.32	R	1
4. Evaluate the effectiveness of instruction for students with disabilities using online and offline assessment results.	2.50	VR	3	2.27	R	4
5. Improve student learning experiences by using technology to collect information about students (e.g. interests, background, learning preferences)	2.50	VR	3	2.31	R	2
6. Check student progress by using online assessments frequently.	2.50	VR	3	2.28	R	3
7. Decide which groups or individual students need additional help using online assessment results.	2.25	R	7.5	2.24	R	6.5
8. Help students see their learning progress using online and offline assessment results.	2.50	VR	3	2.26	R	5
Average Weighted Mean	2.42	Very Ready		2.26	Ready	

In terms of data practices in the implementation of blended learning, teachers claimed that they are “very ready” in the following: “Use technology tools to check student participation in online activities”, “Evaluate the effectiveness of instruction for

students with disabilities using online and offline assessment results”, “Improve student learning experiences by using technology to collect information about”, “Check student progress by using online assessments frequently”, and “Help students see their

learning progress using online and offline assessment results” with a common weighted mean of 2.50, as well as “Use technology that organize and displays student assessment results so one makes decision about instruction” with a weighted mean of 2.38, while they are “ready” on the following: “See patterns in small group and whole-class learning using online and offline assessment results” and “Decide which groups or individual students need additional help using online assessment results” with a shared weighted mean of 2.25. The average weighted mean of 2.42 is an indication that teachers are “very ready” in implementing blended learning through the utilization of various data practices.

Meanwhile, student-respondents are “ready” in the all the data practices relevant to blended learning: The use technology tools to check student participation in online activities such as attendance, log ins, time of each activity” has the highest weighted mean

of 2.32 followed by “Improve student learning experiences by using technology to collect information about students” at 2.31, while “See patterns in small group and whole-class learning using online and offline assessment results” has the weighted mean of 2.15 which is the lowest among the parameters given based on the perception of the student-respondents. The average weighted mean of 2.26 suggests the readiness of students in the implementation of blended learning in terms of data practices.

Comparison of the responses of the two groups of respondents reveals that teachers manifest higher level of readiness in the implementation of blended learning in terms of data practices as evidenced by the average weighted means of 2.42 and 2.26, respectively. This is also an implication that teachers are very ready to use digital tools to monitor student activities and performances in order to make informed choices about interventions to help all students progress.

Table 18. Level of Readiness on the Implementation of Blended Learning as to Personalizing Instruction

Particulars	Teachers			Students		
	W.M.	Q.D.	Rank	W.M.	Q.D.	Rank
1. Use technology that lets students choose how they show what they learned	2.38	VR	6	2.25	R	7.5
2. Use technology that helps students see their progress towards goals that they have set.	2.63	VR	2	2.25	R	7.5
3. Use online tools to make sure that students learn materials before moving on to the next lesson.	2.50	VR	4	2.26	R	6
4. Combine individual or small group instruction with educational software to help each student succeed.	2.63	VR	2	2.27	R	5

5.	Develop of a set of online and offline resources to give students choice in how they learn.	2.38	VR	6	2.30	R	2
6.	Use technology that allows students to adjust the speed of their learning.	2.25	R	8	2.31	R	1
7.	Use educational software that adapts how each student progresses through lesson materials.	2.38	VR	6	2.28	R	3.5
8.	Use technology that gives students some choice in where they learn.	2.63	VR	2	2.28	R	3.5
Average Weighted Mean		2.47	Very Ready		2.28	Ready	

It can be surmised from the table that teacher-respondents affirmed that they are “very ready” in the implementation of blended learning in terms of the following indicators of personalizing instruction: “Use technology that helps students see their progress towards goals that they have set”, “Combine individual or small group instruction with educational software to help each student succeed”, and “Use technology that gives students some choice in where they learn” has the highest weighted mean of 2.63 each respectively, while they are “ready” on the “Use technology that allows students to adjust the speed of their learning” with the lowest weighted mean of 2.25. Overall, the average weighted mean of 2.47 indicates that teachers are “very ready” in personalizing instruction which is vital in the implementation of blended learning.

As to the perceptions of students, they claimed that they are “ready” on the based on the indicated parameters of personalizing instructions. Specifically, “Use technology that allows students to adjust the speed of their learning” received the highest weighted mean of 2.31 followed by “Develop of a set

of online and offline resources to give students choice in how they learn” at 2.30 and “Use educational software that adapts how each student progresses through lesson materials” and “Use technology that gives students some choice in where they learn” with a common weighted mean of 2.28, while “Use technology that lets students choose how they show what they learned” and “Use technology that helps students see their progress towards goals that they have set” with a common weighted mean of 2.25 has received the lowest mean. The average weighted mean of 2.28 suggests that students are “ready” in the implementation of blended learning in terms of personalizing instruction.

Furthermore, comparative analysis of the average weighted means of the responses of the two groups of respondents reveals that teachers’ responses obtained a higher average weighted mean of 2.47 which is qualitatively described as “very ready” while students’ responses have average weighted mean of 2.28 which is interpreted as “ready”. These further imply that both groups of respondents show readiness in the implementation of blended learning as to personalizing

instruction. As to future result of the study, Arnesal et.al (2019) have concluded that teachers who participated in personalized learning experiences generally seemed to have increased desires and confidence for instituting personalized practices in their own classrooms. Reflections from student assignments at the end of the semester indicated that students felt that they better understood both the challenges and benefits

of personalized learning. They seemed to feel as though the benefits outweighed the challenges because they generally planned on using personalized methods in their future classrooms. These reflections suggested that teachers felt more confident in their abilities to personalize learning because they were able to experience challenges that their own students may face. Hence, an improved performance is seen.

Table 19. Level of Readiness on the Implementation of Blended Learning as to Online Interaction

Particulars	Teachers			Students		
	W.M.	Q.D.	Rank	W.M.	Q.D.	Rank
1. Give quick online feedback to students in a variety of ways using text, audio, or video.	2.50	VR	8	2.33	R	7
2. Communicate online with students while still maintaining professional student-teacher relationship.	2.75	VR	2.5	2.35	VR	5
3. Help students learn to interact well in online discussion.	2.75	VR	2.5	2.33	R	7
4. Give students a chance to help each other using online technology (both inside and outside class).	2.75	VR	2.5	2.36	VR	4
5. Teach students how to communicate online respectfully.	2.75	VR	2.5	2.46	VR	1
6. Help students work well in small groups both online and in-person	2.63	VR	6	2.37	VR	3
7. Use online communication to help strengthen students' feeling that they belong to the class.	2.63	VR	6	2.39	VR	2
8. Help students to interact well with guest presenters through video conferencing.	2.63	VR	6	2.33	R	7
Average Weighted Mean	2.67	Very Ready		2.37	Very Ready	

Consonant to the level of readiness in the implementation of blended learning as to online interaction, the table reflects that that teachers are “very ready” on all the aspects given. Specifically, “Communicate online

with students while still maintaining professional student-teacher relationship”, “Help students learn to interact well in online discussion”, “Give students a chance to help each other using online technology (both

inside and outside class)), and “Teach students how to communicate online respectfully” received the highest weighted mean of 2.75 each respectively. “Help students work well in small groups both online and in-person”, “Use online communication to help strengthen students’ feeling that they belong to the class”, and “Help students to interact well with guest presenters through video conferencing” had a common weighted mean of 2.63, while “Give quick online feedback to students in a variety of ways using text, audio, or video” had a weighted mean of 2.50. The average weighted mean of 2.67 denotes of the affirmation of teachers that they are “very ready” on the implementation of blended learning in terms of online interaction.

On the other hand, students claimed that they are “very ready” as reflected by their responses on the following indicators of online interaction: “Teach students how to communicate online respectfully” with a weighted mean of 2.46 received the highest mean followed by “Use online communication to help strengthen students’ feeling that they belong to the class” at 2.39 and “Use online communication to help strengthen students’ feeling that they belong to the class” at 2.37 as the third highest among the parameters. Furthermore, data showed the students are “ready” on the following: “Give quick online feedback to students in a variety of ways using text, audio, or video”, “Help students learn to interact well in online discussion”, and “Help students to interact well with guest presenters through video conferencing” with a common weighted mean of 2.33.

To conclude, the average weighted mean of 2.37 indicates that students are “very ready” in the implementation of blended learning as to online interaction. The readiness of students indicates their own eagerness for opportunity to learn how to “have control over their time, to cooperate, and prepare them for the world of work” (Monteiro & Morrison, 2014) which is corresponding to the result of this study. Moreover, the students even went further to describe how blended learning as to online interaction gave them new perspectives on how they best learned and opened up opportunities for deeper learning in the content.

Comparison of average weighted means of the two groups showed that teachers’ responses have higher average weighted mean than students’ responses at 2.67 and 2.37, respectively. However, both means are qualitatively described as “very ready” implying that both teachers and students are “very ready” in the implementation of blended learning in terms of online interaction.

Conclusion

The findings of the study demonstrate that both teachers and students were generally ready to implement blended learning during the COVID-19 pandemic. Teachers exhibited a higher level of readiness than students across most of the dimensions investigated, particularly in data practices, personalizing instruction, and online interactions, where they attained a “very ready” level. Meanwhile, students were generally “ready” in disposition, online integration, data

practices, and personalizing instruction, and "very ready" in online interactions, indicating their willingness and capability to participate in technology-enhanced learning environments.

The results further indicate that teachers possessed stronger competencies in utilizing technology for instructional planning, learner monitoring, assessment, and instructional decision-making. Their high readiness reflects their ability to integrate digital tools into teaching while maintaining effective communication and engagement with learners. Students, on the other hand, demonstrated readiness to adapt to blended learning despite the challenges posed by the pandemic. Their positive disposition toward online collaboration, self-directed learning, and virtual interaction suggests that they are capable of adjusting to flexible learning environments when adequate institutional support is provided.

Among the five dimensions, online interaction emerged as the strongest area of readiness for both teachers and students, highlighting the importance of communication, collaboration, and learner engagement in sustaining effective blended learning. However, relatively lower ratings in disposition and selected indicators of online integration and data practices suggest that continuous enhancement of digital competencies, technology integration, and learner autonomy remains necessary. Overall, the study concludes that the successful implementation of blended learning depends not only on technological resources but also on the preparedness, adaptability, and collaborative efforts of both teachers and students.

Implications of the Study

The findings imply that educational institutions should continue strengthening blended learning initiatives by investing in both technological infrastructure and human capacity development. Since teachers demonstrated a higher level of readiness than students in most dimensions, schools should sustain professional development programs that further enhance teachers' competencies in instructional technology, digital assessment, learner analytics, and personalized instruction while enabling them to mentor students in maximizing digital learning opportunities.

The study likewise suggests that learner readiness requires continuous institutional support. Although students exhibited readiness in blended learning, relatively lower ratings in certain indicators indicate the need for interventions that develop digital literacy, self-regulated learning, responsible data use, and effective online learning strategies. Schools should therefore implement orientation programs, technology skills training, and academic support systems that enable students to become more independent and confident learners in blended environments.

Furthermore, the high readiness observed in online interaction emphasizes the significance of meaningful communication and collaborative learning in blended education. This implies that educational institutions should prioritize instructional approaches that promote active engagement, timely feedback, collaborative activities, and strong teacher-student relationships. Such practices can improve learner motivation,

participation, and academic achievement while fostering a more inclusive and supportive learning environment.

The findings also provide valuable evidence for educational leaders and policymakers in designing policies that strengthen blended learning implementation beyond emergency situations. By identifying areas requiring improvement, school administrators can formulate strategic interventions that enhance instructional quality, promote digital transformation, and ensure the sustainability of flexible learning modalities in the future.

Recommendations

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

1. **School administrators** should develop comprehensive professional development programs that continuously enhance teachers' competencies in blended learning, particularly in online integration, instructional technology, digital assessment, data analytics, and learner-centered instructional design.
2. **Teachers** should continue adopting innovative blended learning strategies that promote active learning, personalized instruction, collaborative online activities, and timely feedback to improve student engagement and learning outcomes.
3. **Students** should be provided with continuous training on digital literacy, self-regulated learning, online collaboration, and responsible technology use to strengthen their readiness for blended learning and improve their academic performance.
4. **Educational institutions** should invest in reliable technological infrastructure, learning management systems, internet connectivity, and technical support services to ensure equitable access to blended learning resources for both teachers and students.
5. **School leaders and policymakers** should formulate institutional policies that strengthen blended learning implementation through continuous monitoring, evaluation, and quality assurance mechanisms that respond to emerging educational needs.
6. Since **online interaction** emerged as the strongest area of readiness, schools should further maximize collaborative learning, virtual discussions, peer interaction, and effective teacher-student communication while simultaneously strengthening areas that received relatively lower readiness ratings, particularly disposition, online integration, and data practices.
7. **Future researchers** are encouraged to conduct similar studies involving larger populations, different educational levels, and other geographical settings. Future investigations may also examine additional variables such as digital competence, instructional effectiveness, learner engagement, academic performance, and institutional support using mixed-methods or longitudinal research

designs to provide a more comprehensive understanding of blended learning readiness.

- Akkoyunlu, B., & Soylu, M. Y. (2011). A Study of Student's Perceptions in a Blended Learning Environment Based on Different Learning Styles. *Educational Technology & Society*, 11(1): 183-193.
- Akyol, Z., & Garrison, R.D. (2011). Understanding cognitive presence in an online and blended community of inquiry: Assessing outcomes and processes for deep approaches to learning. *British Journal of Educational Technology*, 42(2), 33–250. <https://doi.org/10.1111/j.1467-8535.2009.01029.x>
- Alday, R. & Pascual M. (2019). To be or not to be: E-teaching in Graduate school in Philippine Perspective. Retrieved on June 25, 2021 from <http://research.lpubatangas.edu.ph/wpcontent/uploads/2014/05/IJCTE-To-be-or-not-Tobe.pdf>.
- Ali, W. (2020). Online and Remote Learning in Higher Education Institutes: A Necessity in light of COVID-19 Pandemic. *Higher Education Studies*, 10(3), 16. <https://doi.org/10.5539/hes.v10n3p16>.
- Alsarayreh, R. (2020). Using blended learning during COVID-19: The perceptions of school teachers in Jordan. Karak University College, Al-Balqaa' Applied University, Jordan.
- Alshahrani, F., & M. Talaue, G. (2018). Traditional versus Blended Learning Method: A Comparative Study on its Effectiveness in Business Communication Course. *International Journal of Advanced Information Technology*, 08(06), 01–18. <https://doi.org/10.5121/ijait.2018.8601>.
- Alvarez, A. V. (2020). Learning from the problems and challenges in blended learning: Basis for faculty development and program enhancement. Thesis, Far Eastern University, Manila.
- Arbaugh, J. B., et al. (2008). Developing a Community of Inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample. *Internet and Higher Education*, 11, 133–136.
- Archibald, D. (2010). Fostering the development of cognitive presence: Initial findings using the community of inquiry survey instrument. *The Internet and Higher Education*, 13(1–2), 73-74. <https://doi.org/10.1016/j.iheduc.2009.10.001>
- Bandalaria, M. (2014). E-Learning in the Philippines: Trends, Directions, and Challenges. *International Journal on E-Learning*, v8 n4 p495-5.
- Bath, D. & Bourke, J. (2010). Getting started with blended learning. Australia: Griffith Institute for Higher Education.
- Billigmeier, G.M. (2011). Blended Learning: Design and Implementation. Retrieved on July 10, 2021 from http://imet.csus.edu/imet10/portfolio/billigmeier_g/billigmeier/ROLFinal.pdf
- Blended Learning Readiness Survey. (n.d.). Retrieved on June 25, 2021 from https://byu.az1.qualtrics.com/jfe/form/SV_86LBm9syPwmPgZD
- Bonk, C. J. et al. (2015). Handbook of Blended Learning: Global Perspectives, Local Designs, San Francisco, Wiley & Sons.

- Bower, M., et al. (2015). Design and implementation factors in blended synchronous learning environments: Outcomes from a cross-case analysis. *Computers & Education*, 86, 1–17. <https://doi.org/10.1016/j.compedu.2015.03.006>.
- Bullen, P. & Alltree J. (2012). Editorial. *Journal for the Enhancement of Learning and Teaching*, 3(2): 4 –6.
- Calamcam, J. M. M. (2017). Effectiveness of Blended E-Learning Approach in a Flipped Classroom Environment. Dissertation. De La Salle Santiago Zobel School, Philippines.
- Capili, A.& Manuel, K. (2014). Development of E-Learning System for Philippine Literature Subject of College of Arts and Science in Cavite State University.
- Chakraborty, M. (2017). Learner Engagement Strategies in Online Class Environment. Dissertation. Texas A&M University, USA.
- Clayton Christensen Institute. (2013). Blended Learning Definitions and Models. Retrieved on July 10, 2021 from <http://www.christenseninstitute.org/blended-learningdefinitions-and-models/>.
- Cleveland-Innes, Martha & Campbell, Prisca. (2013). Emotional Presence, Learning, and the Online Learning Environment. *International Review of Research in Open and Distance Learning*. 13. 269-292. 10.19173/irrodl.v13i4.1234.
- Codamon, D. B. (2020). “Understanding the Distance Learning Delivery Modalities”. Retrieved on June 25, 2021 from <https://pia.gov.ph/news/articles/1049277>
- Cortez, C. P. (2020). Blended, Distance, Electronic and Virtual-Learning for the New Normal of Mathematics Education: A Senior High School Student’s Perception. *European Journal of Interactive Multimedia and Education*, 1(1), e02001. <https://doi.org/10.30935/ejimed/8276>.
- Cross, J., (2012). *Handbook of Blended Learning: Global Perspectives, Local Designs*, San Francisco, Pfeiffer Publishing.
- Dewey, J. (1938). *Experience and education*. Macmillan.
- Espinosa, J.P. (2016) Learning with the help of Technology. Retrieved on June 25, 2021 from <https://www.manilatimes.net/learning-with-the-help-of-technology/286384>.
- Finn, A. & Bucci, M. (2014). A case study approach to blended learning. Los Angeles: Centra Software. Retrieved on July 10, 2021 from http://www.conferzone.com/resource/wp/CaseStudy_BlendedLearning.pdf
- Finol, M. O. (2020). Asynchronous vs. Synchronous Learning: A Quick Overview. Retrieved on June 28, 2021 from <https://www.brynmawr.edu/blendedlearning/asynchronous-vs-synchronous-learning-quick-overview>.
- Garnham, C. & Kaleta, R. (2012). Introduction to hybrid courses. *Teaching with Technology Today*, 8(6). Retrieved on July 10, 2021 from <http://www.uwsa.edu/ttt/articles/garnham.htm>
- Garrison, D. R. (2018). Designing a Community of Inquiry. Community of Inquiry. Available from <http://www.thecommunityofinquiry.org/editorial9>

- Garrison, D.R., Anderson, T., Archer, W. (2010). The first decade of the community of inquiry framework: A retrospective. *The Internet and Higher Education*. 13(1), 5-9.
- Garrison, R., & Kanuka, H. (2014). Blended learning: Uncovering its transformative potential in higher education. *Internet and Higher Education*, 7, 95-105.
- Garrison, R., & Vaughan, H. (2014). Blended learning in higher education: Framework, principles and guidelines. San Francisco: Jossey-Bass.
- Gillett-Swan (2017). The Challenges of Online Learning: Supporting and Engaging the Isolated Learner. Retrieved on June 25, 2021 from https://www.researchgate.net/publication/312182813_The_Challenges_of_Online_Learning_Supporting_and_Engaging_the_Isolated_Learner.
- Graham, C.R. (2004). Blended learning systems: Definition, current trends, and future directions. In *The handbook of blended learning: Global perspectives, local designs*, ed. C. J. Bonk and C. R. Graham, 3–21. San Francisco: Pfeiffer. Retrieved on July 10, 2021 from http://www.academia.edu/563281/Blended_learning_systems_Definition_current_trends_and_future_directions
- Graham, C. R., & Robinson, R. (2014). Realizing the transformational potential of blended learning. In *Blended Learning Research Perspectives* (83-110). Needham, MA: The Sloan Consortium.
- Harb, I. I. (2013). The Effectiveness of a Blended Learning Program on Developing and Retention of Palestinian Tenth Graders' English Writing Skills. Master's Thesis, The Islamic University of Gaza, Palestine.
- Hinampas, R. T. et al (2017). Blended Learning Approach: Effect on Students' Academic Achievement and Practical Skills in Science Laboratories. Dissertation. Central Mindanao University, Philippines.
- Hofmann J. (2011). Challenges of Blended Learning. Retrieved on July 10, 2021 from <http://www.trainingmag.com/article/soapbox-top-10-challengesblended-learning>
- Kaur, M. (2013). Blended Learning - Its Challenges and Future. Thesis. Khalsa College, Patiala, India.
- Kintu, M. J., Zhu, C. & Kagambe, E. (2017). Blended learning effectiveness: the relationship between student characteristics, design features and outcomes. Dissertation. Mountains of the Moon University, Fort Portal, Uganda.
- Kurt, S. C. & Yildirim, I. (2018). The Students' Perceptions on Blended Learning: A Q Method Analysis. Dissertation. Adiyaman University, Turkey.
- Lapitan, L. D. S. et al. (2021). An Effective Blended Online Teaching and Learning Strategy during the COVID-19 Pandemic. Dissertation. University of Santo Tomas, Manila, Philippines.
- Lin, Y., Cheng, C., & Chiang, P. (2017). The Effect of Blended Learning in Mathematics Course. Thesis. National Kaohsiung University of Applied Sciences, Taiwan.
- Littlejohn, A., & Pegler, C. (2013). Preparing for Blended e-Learning. London: Routledge.

- Llego, M. A. (2020). DepEd Learning Delivery Modalities for School Year 2020-2021. [Online]. Retrieved September 24, 2020. From: <https://www.teacherph.com/deped-learning-delivery-modalities/>.
- Malaya, B. (2020). Modular Distance Learning: Here's what you need to know. [Online]. Retrieved March 23, 2021. From: <https://www.whatalife.ph/modular-distance-learning-heres-what-you-need-to-know/>.
- Manila Standard. (2019). E-Learning: The next paradigm shift in education. Retrieved on June 25, 2021 from <http://manilastandard.net/tech/tech-news/100860/e-learning-the-nextparadigm-shift-in-education.html>.
- Marei, T. A., & Al-Heila, M. M. (2016). Modern educational curricula. Its elements - its foundations, its operations (13th Edition). Amman: Dar Al Masirah for Publishing and Distribution.
- Martinsen, B. W. (2017). The Potential and Pitfalls of Blended Learning, Unpublished Doctoral Dissertation, James Cook University, Townsville, Australia.
- Mason, R. & Rennie, F. (2012). E-learning: The key concepts. London: Routledge
- Mercado, C. (2019). Readiness Assessment Tool for an eLearning Environment ... -MAFIADOC.COM. Retrieved on June 25, 2021 from <https://mafiadoc.com/readiness-assessment-tool-for-an-elearning-environment-599082991723ddca69545a85.html>
- Millichap, N. & Vogt, K. (2012). Building Blocks for College Completion: Blended Learning. Retrieved on July 10, 2021 from <http://net.educause.edu/ir/library/pdf/ng1235.pdf>.
- Mozelius, P. & Rydell, C. (2017). Problems Affecting Successful Implementation of Blended Learning in Higher Education - the Teacher Perspective. Dissertation. Mid Sweden University, Östersund, Sweden.
- Pastor C. K. L. (2020). Sentiment analysis on synchronous online delivery of instruction due to extreme community quarantine in the Philippines caused by Covid-19 pandemic. Asian J. Multi. Stud.;3(1):1-6.
- Rodgers, C. & Raider-Roth, M. (2006). Presence in teaching. theory and practice. 12. 265-287030265. 10.1080/13450600500467548.
- Rovai, A., & Jordan, H. (2014). Blended learning and sense of community: A comparative analysis with traditional and fully online graduate courses. The International Review of Research in Open and Distance Learning, 5 (2). Retrieved on July 10, 2021 from <http://www.irrodl.org/index.php/irrodl/article/view/192/274>.
- Saboowala, R., & Manghirmalani-Mishra, P. (2020). Perception of In-Service Teachers Towards Blended Learning as the New Normal in Teaching-Learning Process Post COVID-19 Pandemic
- Sauer, L. M. (2020). What is Coronavirus? Retrieved on March 23, 2021. From: <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus>
- Schwab, J. (1960) Inquiry, the Science Teacher, and the Educator. The School Review © 1960 The University of Chicago Press

- Sharma, P. & Barrett, B. (2014). *Blended Learning: Using technology in and beyond the language classroom*. London: Macmillan Publishers Limited.
- Sharpe, R. et al. (2016). The undergraduate experience of blended learning: A review of UK literature and practice. Retrieved on July 10, 2021 from http://www.heacademy.ac.uk/resources/detail/teachingandresearch/Undergraduate_Experience
- Shea, P., & Bidjerano, T. (2010). Learning presence: Towards a theory of self-efficacy, self-regulation, and the development of a communities of inquiry in online and blended learning environments. *Computers & Education*, 55(4), 1721-1731.
- Singh, H. (2013). Building effective blended learning programs. *Educational Technology*, 43(6): 51–54.
- Stenbom, C. V. & Hrastinski, (2016). Emotional Presence in a Relationship of Inquiry: The Case of One-to-One Online Math Coaching. *Online Learning*. 20. 10.24059/olj.v20i1.563.
- The Four Important Models of Blended Learning Teachers Should Know about. (2014). Retrieved on July 10, 2021 from <http://www.educatorstechnology.com/2014/04/the-fourimportant-models-of-blended.html>.
- Tupas, & Laguda, (2010). *Blended Learning – An Approach in Philippine Basic Education Curriculum in New Normal: A Review of Current Literature*. Dissertation. Northern Iloilo Polytechnic State College, Estancia, Iloilo, Philippines.
- Turpin, C. M. (2018). *Blended Learning and Its Effect on Student Achievement: An Action Research Study*. University of South Carolina, Columbia, USA.
- Vygotsky, L. S. (1997). *Thinking and Speech* (N. Minick, Trans. Vol. 1). New York: Plenum Press.
- Wade, Rosalind (2013). What happens when you hear or see the term ‘Blended Learning’? Retrieved on July 10, 2021 from <http://elearningpapers.eu/en/article/What-happens-when-you-hear-or-see-the-term-%E2%80%98Blended-Learning%E2%80%993F>