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RESEARCH ARTICLE

The Effectiveness of Blended Learning Modality to Grade V Learners

Salvador R. Tubo
Labangon Elementary School
Corresponding Author: Salvador R. Tubo, **E-mail:** salvadortubo@gmail.com

ABSTRACT

This research assessed the effectiveness of blended learning on Grade 5 learners' academic performance at an elementary school in Cebu City during the school year 2022-2023 as the basis for intervention activities. A descriptive correlational research design was employed using a self-developed questionnaire anchored in the community inquiry theory. The respondents were the Grade 5 learners selected using random sampling. The gathered data were treated using simple percentages, weighted mean, and Pearson product-moment correlation. Based on the study's findings, the learner-respondents have a large family size, have internet access, have 1 to 2 gadgets at home, and have parents with a combined monthly income below 5000 pesos. On the other hand, the profile of the teacher-respondents showed that the majority have taught for 5 years or less, hold bachelor's degrees, and have 3-4 gadgets at home. Furthermore, the blended learning modality was perceived as very effective by the teachers, but only effective for both parents and learners. It was found that there were significant differences and a significant relationship between parents' and learners' assessments of the effectiveness of the blended learning modality. It is recommended that the action plan be adopted.

KEYWORDS

Administration and Supervision, blended learning modality, descriptive, research, Cebu City

ARTICLE INFORMATION

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1. Introduction

The COVID-19 pandemic fundamentally disrupted daily life and transformed a public health emergency into a global educational crisis. School closures worldwide affected approximately 87 percent of the global student population, leaving 1.52 billion learners outside their traditional classrooms (Talic et al., 2021). Faced with unprecedented uncertainty, educational systems were compelled to adapt rapidly, and the effects of this period continue to influence teaching and learning practices today (Reimers, 2022). Educators have been challenged to maintain instructional quality while adjusting to changing conditions. The shift away from face-to-face learning also highlighted the unique value of conventional classrooms, which provide not only cognitive development but also emotional, psychological, and social growth through direct interaction(Khaidir & Suud, 2020; Zhang & Bray, 2020). As a result, the transition to technology-supported learning has generated significant pedagogical and psychological debates, even among pre-service teachers.

In the Philippines, the educational response to the pandemic required balancing public health concerns with the need to sustain learning. Although former President Rodrigo Roa Duterte initially opposed resuming face-to-face classes until learners were fully vaccinated, the Department of Education (DepEd), led by Secretary Leonor Briones, emphasized the importance of uninterrupted education. Consequently, DepEd adopted a "new normal" framework that combined printed modular materials with technology-based resources accessible via smartphones, tablets, and computers (Chaithra & Sandhya, 2020). This transition accelerated the adoption of blended learning, also known as hybrid, mixed-mode, or technology-enhanced instruction. Blended learning integrates digital technologies with traditional classroom practices to expand access,

enhance communication, and provide more flexible and engaging learning opportunities (Gayatri et al., 2022; Viberg et al., 2020).

Despite its growing prominence, blended learning remains a relatively new and challenging approach in the Philippine public school system. The rapid rollout of hybrid instruction exposed persistent issues, including limited funding, inadequate facilities, and significant digital inequities that hinder effective teaching and learning. At the same time, a full return to traditional instruction remains difficult because of ongoing health concerns and the need for flexible educational delivery systems (Kaden, 2020). Consequently, educational leaders increasingly view digitalization not as a temporary response but as a long-term direction for educational development. This perspective was reinforced when Vice President and Education Secretary Sara Duterte indicated that blended learning may become a permanent component of Philippine basic education, reflecting a broader effort to strengthen and improve the quality of the country's educational system (Fernandez, 2022).

2. Purpose of this study

This research assessed the effectiveness of the blended learning modality on the academic performance of Grade V learners at an elementary school in Cebu City during the school year 2022–2023, serving as a basis for targeted intervention activities. Specifically, the study profiled the demographic characteristics of the respondents, evaluating learners based on family size, availability of internet connection, parents' educational attainment, availability of home technology-related equipment, and parents combined monthly income, while assessing teachers based on their length of service, educational attainment, and availability of home technology-related equipment. Furthermore, it investigated the perceived effectiveness of the blended learning modality across three core dimensions: cognitive presence, social presence, and teaching presence. Finally, the study analyzed the statistical relationships and variances among stakeholder groups, specifically testing for a significant relationship between teachers' and parents' perceptions, a significant difference between teachers' and parents' perceptions, and a significant difference between parents' and learners' perceptions regarding the overall effectiveness of blended learning.

3. Research Methodology

This study employed a descriptive research design to systematically examine the operational dynamics of blended learning at an elementary school in the Division of Cebu City during the 2022–2023 school year. Descriptive research is appropriate for portraying situations as they naturally occur without manipulating variables (Cristobal & Cristobal, 2017). Using simple random sampling, 50 percent of the target population was selected, comprising 35 Grade V learners, 12 teachers, and 35 parents. Data were collected using a researcher-developed survey instrument based on the Community of Inquiry (CoI) framework, assessing respondents' profiles and perceptions of the effectiveness of blended learning in terms of cognitive, social, and teaching presence. After obtaining approval from the school head and coordinating with school personnel, the questionnaires were administered, explained, and retrieved on the same day to ensure complete responses. The gathered data were analyzed using appropriate statistical tools. Percentages were used to describe the respondents' profiles, weighted means to determine the perceived effectiveness of blended learning, and the Pearson product-moment correlation coefficient to examine significant relationships and differences among respondents' assessments.

4. Results and Discussions

This section presents the interpretation and analysis of the data gathered.

4.1 Demographic Profile of the Learners

This section discusses the learners' demographic profile in terms of family size, availability of internet connection, parents' educational attainment, availability of technology-related equipment at home, and parents' combined monthly income.

Table 1
Family Size
n=35

Family size	Frequency (f)	Percentage %
Small	10	28.57
Medium	8	22.86
Big	17	48.57
Total	**35**	**100.00**

As shown in Table 1, nearly half of the student respondents (48.57%) come from large families, 28.57% from small families, and 22.86% from medium-sized families. This distribution is more than a demographic data point; it reflects a lived reality for a significant portion of these Grade V learners. Growing up in a large household introduces unique day-to-day dynamics that fundamentally shape how a student experiences and navigates blended learning.

When a school adopts a hybrid or blended educational framework, the home suddenly becomes an extension of the classroom. In this setup, family size deeply affects the physical and structural space available to a child. Large families routinely navigate shared living spaces, higher ambient noise, and a lack of quiet, isolated zones where a student can sit down and truly focus. Alsaaty and Makhlouf (2020) captured this challenge in their baseline study, observing that students from larger households face steep hurdles in remote learning environments simply because they lack the physical privacy required to maintain cognitive focus and process complex learning materials. Beyond physical space, managing a large household often stretches both technological and parental resources thin.

Moreover, when multiple school-aged siblings share the same roof, they not only share a home; they must actively compete for limited internet bandwidth and digital devices. This logistical tug-of-war is further complicated by the reality that parental attention is a finite resource. A resource dilution theory posits that as a family grows, the material assets (such as gadgets and reliable connectivity) and non-material investments (such as time, emotional support, and direct homework help) that parents can provide are naturally divided among more children (Fan & Chen, 2020; Sun et al., 2021). For a learner trying to navigate the digital demands of blended learning, this dilution can mean less individual guidance and fewer technical tools, making a supportive school intervention more vital.

Table 2
Internet Connection Availability
n=35

Internet connection	Frequency (f)	Percentage %
Yes	26	74.29
No	9	25.71
Total	**35**	**100.00**

As shown in Table 2, 74.29 percent of Grade V learners have an internet connection at home, while 25.71 percent do not. This further suggests that most learners have an Internet connection at home, whether via Wi-Fi or mobile data, which can be a big help for blended learning.

Not every student has access to the most recent technological developments. A digital divide in education today prevents all students from having equal access to the internet. Without internet connectivity, students miss out on meaningful educational opportunities that affect the nation's future (Bozkurt et al., 2020). More creative citizens will develop better solutions, improving everyone's quality of life. Furthermore, the anticipated start of lessons would prioritize face-to-face interactions, modular and internet-connected technology on smartphones, tablets, and desktop computers, and other educational resources, since education is always crucial to a nation's progress (Tupas & Linas-Laguda, 2020).

Table 3
Parents' Educational Attainment
n=35

Educational Attainment	Frequency f	Percentage %
Elementary	11	31.43
High School	12	34.29
Vocational	9	25.71
College	1	2.86
Post Grad	2	5.71
Total	**35**	**100**

As shown in Table 3, 66 percent of learners' parents in Grade V are elementary or high school graduates. Families have a tremendous impact on children's learning behaviors and academic achievement, as they are children's first and most influential environment. According to Mishra (2020), families may be even more crucial to a student's academic success than

schools and communities**.** In addition González and Bonal (2021) stated that students are at a distinct disadvantage in accessing post-secondary education. This disadvantage persists even after controlling for other important factors such as educational expectations, academic preparation, support from parents and schools in planning and preparing for college, and family income.

Table 4
Technology-Related Equipment Available at Home
n=35

No. of Gadgets	Frequency f	Percentage %
1-2	21	60.00
3-4	6	17.14
5-6	8	22.86
Total	**35**	**100.00**

As shown in Table 4, 60 percent of Grade V learners have 1-2 available gadgets at home, 17.14 percent have 3-4, and 22.86 percent have 5-6. Furthermore, this shows that most students have only 1-2 devices at home for blended learning.

According to Smids et al. (2020), technology offers meaningful work experiences. Additionally, technology offers experiential learning opportunities that can be integrated into all academic subjects taught in schools, including math, reading, science, and social studies. It allows pupils to work with their peers, benefiting from one another. Working with these elements can positively affect students' motivation and learning.

Table 5
Parents' Combined Monthly Income
n=35

Income	Frequency f	Percentage %
Below 5000	16	45.71
5,001 to 10,000	12	34.29
10,001 to 20,000	7	20.00
Total	**35**	**100.00**
Average:	6,714.29	
Std Dev:	4,693.82	

As shown in Table 5, 45.71 percent of the learners' parents earn 5,000.00 below minimum wage per month, 34.29 percent earn 5,001 to 10,000, and 20 percent earn 10,001 to 20,000. This further suggests that 80 percent of the parents of Grade V learners are considered below the minimum wage.

Cooper and Stewart (2021) noted that children's educational attainment is significantly affected by family income, which is expected to increase with higher income. A family with more money can donate more, especially for educational materials. For families with limited incomes, parents often lead busy lives, hold low expectations for their children, and may prioritize survival over education. In addition, students' long-term learning, motivation, and academic achievement may be affected by their families' income. As a result, families with solid financial standing have students who are more motivated to learn, which leads to improved academic success (Tzenios, 2020).

4.2 Demographic Profile of Teachers

This section presents the demographic profile of the teachers in terms of their length of service, educational attainment, and technology–related equipment available at home.

Table 6
Length of Service of the Teachers
n=35

Length of Service	Frequency f	Percentage %

5 yrs & below	5	41.67
6-10 Years	1	8.33
11-20 Years	5	41.67
20 Years Above	1	8.33
Total	12	100.00
Average:	9.83	
Std Dev:	6.68	

As shown in Table 6, 41.67 percent of teachers have handled Grade V learners for 5 years or less, 8.33 percent for 6-10 years, 41.67 percent for 11-20 years, and 8.33 percent for 20 years or more. The data revealed that the teachers handling Grade V learners comprise both new and seasoned educators.

According to Dicke et al. (2020) throughout a teacher's career, teaching experience is positively correlated with increases in student achievement. The increases in teacher effectiveness brought on by experience are most significant during the first few years of teaching. However, they remain considerable as teachers enter their second and often third decades of employment.

Table 7
Highest Educational Attainment of the Teachers
n=35

Educational Attainment	Frequency (f)	Percentage (%)
Bachelor's Degree	8	66.67
Master's Degree	4	33.33
Total	**12**	**100.00**

As presented in Table 7, the data indicate that 66.67 percent of the teachers handling Grade V were graduates of bachelor's degrees, while 33.33 percent were graduates of master's degrees. This further shows that only a few teachers who handle Grade V learners have completed postgraduate studies.

The results have several implications for the quality of education and students' learning outcomes, including limited pedagogical knowledge, limited subject-matter expertise, a lack of professional development activities, inadequate preparation for 21st-century skills, and reduced morale and job satisfaction.

According to Generalao et al. (2022), incentivizing high-performing teacher education schools by providing institutional grants may not be sufficient. Providing close support will be necessary to increase the pool of qualified teachers**.**

Table 8
Technology -Related Equipment Available at Home
n=35

Available Gadgets at Home	Frequency f	Percentage %
1-2	4	33.33
3-4	8	66.67
Total	**12**	**100.00**

As revealed in Table 8, 33.33 percent of the teachers handling Grade V have 1-2 gadgets, and 66.67 percent have 3-4 gadgets. This further indicates that most teachers handling Grade V learners have sufficient devices to support blended learning.

According to Divjak et al. (2022), teaching and learning based on technology are more successful than traditional classrooms. This is because using ICT tools and equipment creates an active learning environment that is more engaging and productive for teachers and students. Internet technology enhances the learning process through online learning (e-learning). E-learning refers to remote learning settings where content is delivered and received via the Internet and network technologies (Gligorea et al., 2023).

4.3 Level of Effectiveness of Blended Learning Modality

This section examines the effectiveness of the blended learning modality as perceived by teachers, students, and parents. This kind of blended learning requires learners to initiate, discover, and accomplish the processes of knowledge construction.

Table 9
Effectiveness of Blended Learning Modality as Assessed by Teachers, Parents, and Learners
n=35

S/N	Indicators	Teachers			Parents			Learners		
		Mean	SD	Verbal Interpretation	Mean	SD	Verbal Interpretation	Mean	SD	Verbal Interpretation
1	Help learners clarify their thinking.	4.83	0.39	Very Effective	3.66	0.97	Effective	4.06	0.68	Effective
2	Motivate my learners individually	4.67	0.49	Very Effective	3.74	0.95	Effective	4.11	0.8	Effective
	3. Let my learners state a fact.	4.5	0.67	Very Effective	3.8	0.96	Effective	4.06	0.97	Very Effective
4	Motivate my learners to develop a point on a specific topic.	4.75	0.45	Very Effective	3.89	0.8	Effective	4.31	0.83	Very Effective
5	Make my learners justify assumptions.	4.67	0.45	Very Effective	3.86	0.88	Effective	4.11	0.96	Effective
	Weighted Mean	**4.68**		**Very Effective**	**3.79**		**Effective**	**4.13**		**Effective**
	SD	**0.49**			**0.91**			**0.85**		

Legend: 4.20 – 5.00 Strongly Agree (SA)/ Very Effective (VE) 1.80 – 2.59 Disagree/ Almost Not Effective (ANE)
3.40 – 4.19 Agree (A)/ Effective (E) 1.00 – 1.79 Strongly Disagree/ Not Effective (NE)
2.60 – 3.39 Neutral (N)/ Partially Effective (PE)

As shown in Table 9, the data indicated that the general assessment of respondent groups regarding the effectiveness of the blended learning modality was Very Effective, with an aggregate weighted mean of 4.2. Furthermore, the indicator "Design diverse graded activities to complete every week for my learners." had the highest computed composite mean of 4.68, while the indicator "Ask 'What ifs' and 'What do you think about' questions to my learners" had the lowest composite mean of 3.79, both verbally interpreted as Very Effective.

Developing cognitive skills allows learners to build upon previous knowledge and ideas. This teaches learners to make connections and apply new concepts to what they already know. According to Elmi (2020), with a deeper understanding of topics and more vital learning skills, students can approach schoolwork with enthusiasm and confidence. Results may suggest that teachers handling Grade V learners are successfully implementing blended learning. In addition, teachers should consider providing activities for students to complete to the best of their ability, while asking high-level thinking questions through blended modalities; this needs improvement.

Table 10
Effectiveness of Blended Learning Modality as Assessed by Teachers, Parents and Learners
n=35

S/N	Indicators	Teachers			Parents			Learners		
		Mean	SD	Verbal Interpretation	Mean	SD	Verbal Interpretation	Mean	SD	Verbal Interpretation
1	Interact with my learners as a group or individually.	4.67	0.49	Very Effective	4.09	0.74	Effective	3.51	1.4	Effective
2	Make my learners feel welcome and feel my presence as a teacher	4.67	0.49	Very Effective	3.86	0.77	Effective	4.26	0.89	Very Effective
3	Display my fun and humorous personality to my class.	4.58	0.51	Very Effective	3.89	0.9	Effective	4.09	1.7	Effective
4	Engage in an interactive discussion with my learners.	4.5	0.67	Very Effective	3.94	1.08	Effective	4.37	0.84	Very Effective
5	Make my learners share their opinion with the rest of the class.	4.67	0.65	Very Effective	4.06	0.87	Effective	3.94	1	Effective
6	Ask "What ifs"and "What do you think about"questions to my learners.	4.25	0.62	Very Effective	3.11	1.11	Partially Effective	3.77	1.14	Effective
	Weighted Mean	**4.55**		**Very Effective**	**3.83**		**Effective**	**3.99**		**Effective**
	SD			**0.57**			**0.91**			**0.16**

Legend: 4.20 – 5.00 Strongly Agree (SA)/ Very Effective (VE) 1.80 – 2.59 Disagree/ Almost Not Effective (ANE)

As shown in Table 10, the general assessment of the respondents' groups was 4.12, interpreted as **Effective**. Furthermore, the indicator "Provide my child an opportunity to work with a group." had the highest computed composite mean of 4.55, which is verbally interpreted as Effective, while the indicator "Make my child ask 'What ifs' and 'What do you think about' questions." had the lowest composite mean of 3.83, which is interpreted as Partially Effective.

This suggests that parents of Grade V learners believe that their children do learn through blended learning. They also agree that blended learning provides an opportunity for their children to collaborate, but it somehow lacks opportunities to ask them high-level questions that require in-depth answers.

According to Chappel and Ratliffe (2021) , parent participation, including home-school communication and collaboration with professionals in their child's K–12 education, supports positive student outcomes. Amid the pandemic, aside from providing induction and school paraphernalia for teachers for online learning, schools also asked for the help of parents for the success of the teaching and learning process (Ali & Kaur, 2020)

Table 11
Effectiveness of Blended Learning Modality as Assessed by Teachers, Parents and Learners
n=35

S/N	Indicators	Teachers			Parents			Learners		
		Mean	SD	Verbal Interpretation	Mean	SD	Verbal Interpretation	Mean	SD	Verbal Interpretation
1	Design activities that are well organized and easy to understand	4.67	0.49	Very Effective	4.06	0.91	Effective	4.06	0.42	Effective
2	Provide learners with clear ans enough instructions	4.75	0.45	Very Effective	3.77	1.14	Effective	4.31	0.93	Very Effective
3	Design diverse graded activities to complete every week for my learners	4.92	0.29	Very Effective	3.71	1.15	Effective	4.2	0.76	Very Effective
4	Provide explanations and demonstrations to help learners better understand the content.	4.58	0.51	Very Effective	3.6	0.95	Effective	3.94	0.84	Effective
5	Provide my learners opportunity to work together as a group	4.58	0.51	Very Effective	4.23	0.6	Very Effective	3.97	1.18	Effective
6	Provide immediate solution to a learners problem.	4.58	0.67	Very Effective	3.91	0.82	Effective	4.31	0.76	Effective
7	Provide learners opportunity to agree/dis agree with state reasons	4.33	0.49	Very Effective	3.97	0.86	Effective	3.74	1.15	Effective
	Weighted Mean	**4.63**		**Very Effective**	**3.89**		**Effective**			
	4.08 Effective									
	SD	**0.49**			**0.92**			**0.86**		

Table 11 shows the effectiveness of blended learning modality as assessed by teachers, parents, and learners. It had a general assessment score of 4.2, which is interpreted verbally as **Effective**. Likewise, the indicator "Let me engage in an interactive discussion." had the highest computed composite mean of 4.63, which is verbally interpreted as Effective, while the indicator "Make me ask "What ifs" and "What do you think about" questions." had the lowest composite mean of 3.89, which is interpreted as Effective.

This indicates that learners under Grade V think they learn through a blended learning modality. In addition, they believe that the blended learning modality provides interactive discussion among them. However, like the teachers and parents, they believe that blended learning does not provide enough opportunities to practice critical thinking.

Blended learning is one of the most modern approaches to education that helps to address the problems of knowledge explosion, growing educational demand, and overcrowded lectures. Blended learning also increases acceptance opportunities in education, increases literacy rates, and eradicates illiteracy (Yustina et al., 2022).

Hasanah and Malik (2020) added that the blended learning approach can support students' development of their critical thinking abilities. Students are encouraged to improve their logical reasoning abilities by integrating synchronous learning and online learning. According to Kintu et al. (2017), failure and eventual drop-out in online courses are caused by a lack of learner involvement, and a lack of learner connection has been identified as an internal element contributing to learner drop-out in online courses. It was also mentioned that students who cannot form friendships during their blended learning experiences may give up on online and blended learning altogether, becoming alienated and lonely.

4.4 Test of Significant Relationship

This section discusses the relationship between teachers' perceptions of the effectiveness of the blended learning modality and learners' perceptions of it. Table 13 presents the results.

Table 12
Test of Significant Difference between the Perception of Teachers and Learners on the Effectiveness of Blended Learning Modality
n=35

Descriptor		t-stat	p-value	Level of significance	Decision	Remarks
Teachers	Learners	6.32	0.000	α = 0.05	Reject Ho (Null Hypothesis)	Significant

The computed p-value of 3.29E-07, or 0, is less than the 0.05 significance level, suggesting that the null hypothesis is rejected. Hence, there is a **significant** difference between teachers' and learners' assessments of the effectiveness of the blended learning modality. This means there is a significant difference between how teachers and learners assess the effectiveness of the blended learning modality.

Güntaş et al. (2020) stated that the competence and confidence of teachers and students to participate in blended learning will be a key factor in determining the success of e-learning and both types of learning. In addition, Bouilheres et al.(2020) stated that blended learning positively impacts the learning process. It can also enhance students' learning outcomes and motivation and is an effective way to achieve learning objectives. Blended learning also costs less for training and may enhance students' learning experience.

4.5 Test of Significant Difference

This section discusses the differences between teachers' and parents' perceptions of the effectiveness of the blended learning modality. Table 13 presents the results.

Table 13
Test of Significant Difference between the Perception of Teachers and Parents on the Effectiveness of Blended Learning Modality
n=35

Descriptor		t-stat	p-value	Level of significance	Decision	Remarks
Teachers	Parents	5.94	0.000	α = 0.05	Reject Ho (Null Hypothesis)	Significant

Table 13 presents the differences between teachers' and parents' assessments of the effectiveness of the blended learning modality. It has a computed p-value of 1.04, which is interpreted as **significant.** This means there is a significant difference between how teachers and parents evaluate the effectiveness of the blended learning modality.

Numerous academics acknowledge the crucial importance of strong, supportive relationships between families and schools for children's growth and education

Zainuddin (2017) explains that cooperation between the family and the school is demonstrated through a variety of events, such as meetings with the parents of new students. Maintain communication between the family and the school. Inform parents of the results of the student's study. Visit a parent or parents who are homeschooling to tour the facility. Hold a celebration, a school party, or a showcase of the student's work. Create organizations for instructors and for students' parents.

Table 14
Test of Significant Difference between the Perception of Parents and Learners in Terms of the Effectiveness of Blended Learning Modality

n=35

Descriptor		t-stat	p-value	Level of significance	Decision	Remarks
Parents	Learners	6.32	0.008	$\alpha = 0.05$	Reject Ho (Null Hypothesis)	Significant

The computed p-value of 8.43E-03 (0.01), which is less than the 0.05 significance level, suggests that the null hypothesis is rejected. Hence, there is a significant difference between parents' and learners' assessments of the effectiveness of the blended learning modality. This means there is a significant difference between how teachers and learners assess the effectiveness of the blended learning modality.

Every teacher-student-school academic endeavor has always depended heavily on parental participation. It is important to recognize the level of involvement that parents have in their children's education and school, since they are stakeholders in the school community and have a significant impact on learners' educational and environmental transformation (Novianti & Garzia, 2020). Moreover,(Hornby & Blackwell, 2018) mentioned that family involvement in the classroom helps raise student achievement, reduce absenteeism, and restore parents' faith in their kids' education. Learners whose parents or other caregivers are actively involved in their education do better on tests, receive higher grades, have better social skills, and behave better overall.

5. Conclusion and Recommendations

The study's findings demonstrate that the blended learning modality is an effective instructional approach for Grade V learners, despite the socioeconomic and technological challenges faced by many families. While teachers perceived the modality as very effective, parents and learners rated it as effective, indicating that blended learning successfully supported cognitive engagement, social interaction, and instructional delivery but was experienced differently across stakeholder groups. The significant differences in the perceptions of teachers, parents, and learners highlight the need for greater alignment in the implementation and evaluation of blended learning practices. Moreover, the findings suggest that although the modality provides meaningful learning opportunities, greater emphasis should be placed on developing learners' higher-order thinking skills through more inquiry-based and reflective learning activities.

In view of these findings, schools are encouraged to strengthen the implementation of blended learning by providing continuous professional development for teachers, enhancing home-school collaboration, and expanding access to technological resources, particularly for learners from economically disadvantaged households. Teachers should integrate more critical thinking and problem-solving activities into blended instruction while maintaining consistent communication with parents to foster a supportive learning environment. School leaders may adopt and institutionalize the proposed intervention plan to address the identified gaps and sustain instructional quality. Furthermore, future studies are recommended to include larger, more diverse samples and examine additional variables, such as learner achievement, digital literacy, and engagement, to generate broader evidence to inform the continuous improvement of blended learning practices.

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