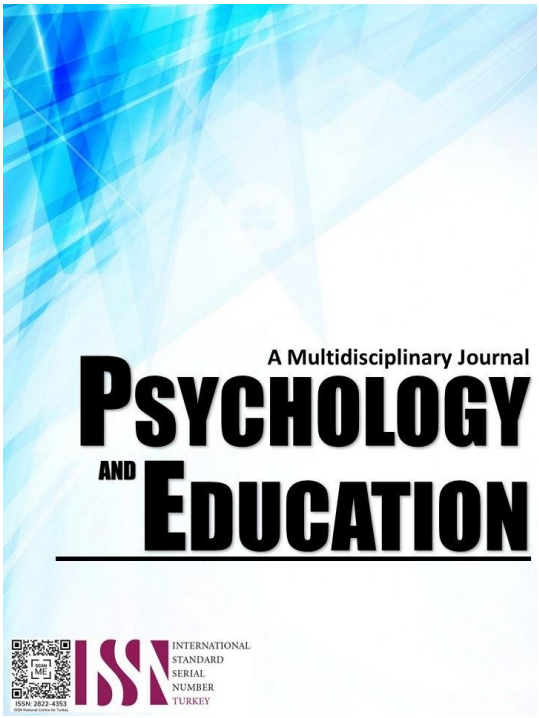
BLENDED LEARNING STRATEGIES AND STUDENT ENGAGEMENT AS PREDICTORS ON STUDENTS' LITERACY DEVELOPMENT



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Research Article

Blended Learning Strategies and Student Engagement as Predictors on Students' Literacy Development

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Abstract

This study sought to determine how blended learning strategies and student engagement predicts literacy development of sixth-grade children. A modified survey questionnaire was completed by 356 students as part of a quantitative research approach. Both student engagement and blended learning strategies were found to be important predictors of literacy progress using multiple regression analysis. The results point to the value of blended learning in raising literacy levels. It is advised that schools offer more resources and training in order to raise teacher and student proficiency in light of these findings. The growth of literacy can be further supported by integrating technology, focusing on active learning strategies, and providing individualized training. To strengthen learning at home, parental involvement is also encouraged.

Keywords: *MAED Educational Management, blended learning strategies, student engagement, literacy development*

Introduction

Language-challenged kids frequently struggle academically, which can result in long-term learning impairments. These difficulties can show up as academic failures and emotional outbursts (Reis, 2004; Schwab & Elias, 2014). Even though English language teachers concentrate on grammar, vocabulary, syntax, and related issues, motivation has come to be regarded as a critical component of language acquisition and other learning domains (Azar & Tanggaraju, 2020; Ismail 2014; Pfenninger & Singleton, 2016). Unresolved conflicts between teaching and learning styles, however, make these difficulties worse and emphasize the need for more student-centered techniques.

As the foundation of education, literacy provides access to a multitude of academic and career options. In addition to developing interpersonal, teamwork, and critical thinking skills that are vital in a variety of personal and professional contexts, it enhances the fundamental abilities of reading, writing, speaking, and listening (Jenkins & Dixon, 1983; Ismail et al., 2014). Despite its significance, social settings, cultural capital, and instructional methods continue to have an impact on literacy development (Bourdieu, 1977; Moll et al., 1992).

A key strategy in contemporary education, blended learning bridges the gap between online and traditional in-person instruction. According to scholars, using the advantages of both teaching modalities, blended learning will emerge as the "new normal" for course delivery (Graham et al., 2011). This strategy has the potential to greatly improve literacy outcomes when paired with student involvement, which includes cognitive, behavioral, and affective aspects (Fredricks, 2004; Walker et al., 2006). With a focus on sixth-grade children, this study investigates how student involvement and blended learning strategies interact to predict literacy progress. In particular, it looks into: the degree to which online and in-person methods are used in blended learning methodologies, the aspects of student participation that are behavioral, affective, and cognitive, the degree of literacy growth in reading, writing, speaking, grammar, and vocabulary. The connection between literacy development and integrated learning techniques. The dimensions of blended learning and engagement's predictive importance for literacy results. Based on socio-cultural theories of literacy (Vygotsky, 1970; Bourdieu, 1977), the study aims to offer practical advice for enhancing literacy teaching using blended learning and the promotion of significant student participation.

Methodology

Respondents

In this study, 356 sixth-grade students from public elementary schools in the North District of Tagum City Division who were enrolled in blended learning programs—which integrate online and in-person instruction—participated. The study was specifically carried out at Suaybaguio-Riña Elementary School and La Filipina Elementary School. The survey did not include students from private schools or those who were not in the sixth grade at the public schools. There was no coercion involved because participation was entirely voluntary, and participants were free to leave at any time if they felt uncomfortable.

Male and female pupils between the ages of 11 and 13 who were representative of the normal age range for sixth-grade students in the Philippine educational system made up the respondents. The participants' varied socioeconomic origins were representative of Tagum City's population, which is a coastal component city in the province of Davao del Norte. With a surface area of 195.80 square kilometers (75.60 square miles), Tagum City makes up 5.72 percent of Davao del Norte (NEDA, 2022).

Purposive sampling was used in this study, which selects participants according to predefined criteria rather than at random (Arikunto, 2010). This approach was used because it closely fits the goals of the study, which is to investigate blended learning experiences and

how they affect the literacy development and engagement of sixth-grade children in a particular setting. The researchers focused on respondents who met the specific criteria required to address the research questions, such as being in Grade 6 and currently participating in blended learning environments, by using purposive sampling, which ensured the inclusion of students actively participating in blended learning in the chosen public elementary schools, La Filipina Elementary School and Suaybaguio-Riña Elementary School, in Tagum City's North District.

Purposive sampling made sure that only students from the designated public schools in Tagum City's North District were included, given the study's geographic and pedagogical context. This preserved the data's relevancy and consistency. This method enables the researchers to directly target a particular group with characteristics relevant to the study—Grade 6 students participating in blended learning—purposeful sampling was chosen over alternative techniques like random or stratified sampling.

Instrument

Three distinct sets of survey questionnaires were utilized in this research. A customized questionnaire used to measure every variable. The modified research tool for the independent variables was student engagement and blended learning strategy. The dependent variable, which was Literacy, was treated in a similar way. Meyer (2006), an assistant professor at the University of Memphis who teaches adult and higher education served as the model for the blended learning questionnaire. The student engagement questionnaire was modified from Hart et al. (2011) of the University of California, Santa Barbara, which assessed how much students pay attention, how curious they are, how interested they are, how optimistic they are, and how passionate they are during class. These factors also indicate how motivated students are to learn and advance in their education. The relationship between learning and development as described by Vygotsky (1978) used as the model for the dependent variable.

The research instruments were being modified by the researcher and it was scrutinized during test validation from internal and external validators. In Appendix F you can find the biodata, validation sheets and summary of the instrument.

The first independent variable was blended learning it had two indicators which were in-person approach and internet learning approach. For the determination of the two indicators the researcher utilized the adapted questionnaire which was taken from Associate professor of higher and adult education at the University of Memphis, Dr. Katrina A. Meyer. The second independent variable, was student engagement, had three indicators, the affective indicator, behavioral and the cognitive indicator.

On the other hand, literacy development had five indicators such as vocabulary, grammar, reading and writing and speaking. The appropriate interpretation scales are the following for blended learning and student engagement.

Pilot testing was done after the outline defense, where the researcher was given her statistician, and the statistician gave her the instruction. After the Pilot testing conducted, the statistician advised to conduct the Cronbach alpha test score. The following outcomes were attained: Cronbach's alpha for blended learning strategies is 0.87. Student Involvement: 0.89 Cronbach's alpha Cronbach's alpha for literacy development is 0.85.

Given that values above 0.70 are typically regarded as appropriate in social science research, these ratings show that all of the study's instruments have good reliability (Tavakol & Dennick, 2011). The reliability of the data gathered is ensured by the strong Cronbach's alpha values, which show that the items on each scale consistently assess the intended components.

Procedure

To provide a thorough grasp of the phenomenon being studied, the research strategy used in this study combined descriptive and predictive correlational methodologies within a quantitative framework. Although these approaches work well together, they have different functions in addressing the goals of the study and evaluating the information. The study's descriptive component played a crucial role in methodically outlining the traits of the variables under investigation. It sought to give a thorough explanation of the degree of blended learning tactics, emphasizing both online and face-to-face methods.

The degree of student involvement, broken down into emotive, behavioral, and cognitive aspects. The respondents' level of literacy development, which includes their knowledge of grammar, vocabulary, reading, writing, and speaking.

This strategy fits with the concept of descriptive research provided by Creswell (2009), which aims to precisely and methodically characterize a population, circumstance, or phenomena without any outside influence. Descriptive research provides insights into the current experiences and practices of the respondents, who were sixth-grade students participating in a mixed learning setting, by compiling and presenting observed data. By creating baseline data on the study variables, this stage of the investigation prepared the way for additional analysis.

The study's predictive correlational component extended the descriptive analysis by looking at the connections between the variables. Its specific goal was to determine whether student engagement and integrated learning tactics might forecast literacy development outcomes. Predictive correlational research forecasts the likelihood or strength of connections between variables, in contrast to causal research, which aims to prove cause-and-effect linkages.

Regression analysis was used in this work to ascertain the predictive capacity of blended learning techniques that combine online and

face-to-face training. Measures of student engagement include affective, behavioral, and cognitive aspects. Using this methodology, the study investigated which areas of engagement and blended learning had a substantial impact on literacy outcomes. This is consistent with Creswell's (2009) description of predictive correlational research as a technique for predicting connections without changing the variables by using patterns that have been seen.

The following steps were taken as part of a systematic strategy to collect the required data. Requesting approval to conduct this research. The researcher requested approval before beginning the study. Initially, the graduate school dean provides a letter of support to the researcher. Permission from the research ethics committee was required to perform the study. The division superintendent of Tagum City received the letter granting authority to carry out the study. Following approval, the researcher sent a copy to the identified public elementary school's school principal and to the class adviser and subject teacher.

Obtaining the research participants' consent. The responders received printed copies of the informed assent forms. At this point, the researcher gave the responders an explanation of the study, including its goal and the terms of their involvement. Upon acceptance of the parents and students to take part in the research endeavor, they may sign the informed assent form by affixing their signature and give it back to the researcher.

Administration and questionnaire retrieval. After the distribution there was enough time for the respondents to complete the survey. The participants were assured that their responses were kept confidential by the researcher as their names would not appear in any part of the study. Data processing, collaboration and verification. After the distribution of the survey questionnaires, all responses were collected and tallied accordingly. Tallied data were forwarded to the school's assigned statistician for analysis. The University of Mindanao statistician received this for processing. The goal of the research was to ascertain which domain in blended learning strategies and student engagement significantly predicts students' literacy development. Conducted school year 2023-2024 during the second semester.

Data Analysis

The study used three statistical tools—mean, Pearson-r correlation, and multiple regression analysis—to guarantee a comprehensive and correct interpretation of the data. Every instrument was carefully chosen for its capacity to answer research questions and its relation to the goals of the study. The degrees of literacy development, blended learning tactics, and student engagement were summed up using the mean. A concise summary of the participants' average responses was given by this statistical metric. The study created a baseline by using the mean, which aided in characterizing the overall condition of the variables being examined.

The associations between blended learning tactics, literacy growth, and student involvement were investigated using the Pearson-r correlation. Finding out if these factors were statistically significantly correlated was made easier with the help of this tool. It was a suitable option for answering the correlational research objectives of the study because of its capacity to quantify the direction and intensity of linear correlations. Lastly, to determine which elements of blended learning approaches and student participation were the best indicators of literacy progress, multiple regression analysis was used. The study was able to go beyond simply characterizing correlations thanks to this sophisticated statistical technique, which also revealed how independent variables both individually and together affected the dependent variable. The study used this technique to identify the major factors that had the biggest impact on literacy growth.

Furthermore, the researcher seriously observed plagiarism. The similarity index should be secured with the use of prescribed application (Turnitin) as prescribed by the school. In Addition, the researcher observed of the duplication of the published/unpublished work. Similarity Index should be complied to attest its originality. The researcher seriously observed in using theoretical model. Proper citation be observed to avoid misinterpretation.

The researcher observed a strict observation to the research protocols. Discussion on the different issues in terms of the results and other research processes should be disclosed before the research starts. The researcher was qualified to carry out this study, and the adviser's qualifications were sufficient to direct the researcher during the planning, execution, and analysis of the findings.

In summary, despite of the quantitative nature of this study, it still followed the standard protocols in adherence to the ethical standards for the conduct of research studies. Provisions for respect for people, beneficence, and justice were given emphasis to ensure that the respondent's welfare and well-being were protected all throughout the study.

Data Protection should be maintained all throughout the conduct of the study. In adherence to RA 10173 or also known as Data Privacy Act of 2012. By requiring rigorous adherence to data privacy and security standards in research, this regulation guarantees the protection of people's sensitive and personal information. This Act guarantees people's right to privacy and the proper treatment of their data by emphasizing the protection of personal information in both digital and physical media. Because it lays the groundwork for moral and safe data practices, its significance is felt in a variety of fields, including business, education, healthcare, and research. Fundamentally, the Data Privacy Act protects people from having their personal information accessed, used, or disclosed without authorization. The Act is essential in setting limits for data gathering and processing because of the increase in identity theft and cyberthreats. By giving people control over their data, including the opportunity to view, update, or request the erasure of their personal data, it empowers people. Between data subjects and the entities who handle their data, these rights promote confidence.

After successful outline defense, the researcher proceeds to Internal Validation and after that which proceeds to External Validation and prepared for certificate from UMERC ethics.

Ethical Considerations

The primary considerations of this are grade six pupils who were currently enrolled and experienced blended learning (Face to face and Online Class) at North District of Tagum City Elementary Schools. The researcher resort all means such that their participation was within the ethical standards in conducting research. Thus, the researcher guaranteed their well-being and provided them with full security to not lose their trust by adhering to moral principles in conducting this investigation. Moreover, the ethical norms stipulated in Belmont Report (1979), respect, for people, beneficence, and justice were strictly observed.

Respect for humans upholds each human research subject's autonomy and dignity. With this, the participation of the respondents are required of an informed consent (with the addition of assent for minors) advocated tight rules on any research involving deceit, for extra restrictions for In order to maximize voluntariness, researchers intended to enlist volunteers from protected communities. (Paxton, 2020).The students' welfare placed on top priority and that the proceedings are carefully crafted so that they were not harmed in the process. Since the respondents were minors, the consent of their parents was very important. Their parents must understand the extent of their children's participation, as well as the other pertinent details in the study. Further, the identity of the respondents was kept confidential. The data that were presented did not include any specific identifying characteristics of the respondents. Results were presented as the mean response of the group; hence, no individual response was highlighted. Their privacy were respected; thus, it was explained to them that they may skip answered an item that they were not comfortable with, particularly on those items that they deem essential to reserved their judgment.

Beneficence the "do not harm" premise is conceptually expanded upon by beneficence. It specifically required researchers to avoid potential harm to particular research subjects and enhance potential benefits. According to this principle, researchers are required to evaluate the likelihood and severity of individual hazards, carefully consider the dangers to protected populations, and weigh the possible societal advantages against the risks to individuals. (Paxton, 2020). As such, the researcher put the well-being of the respondents on top priority. Thus, the respondents were given sufficient time in completing the research instrument. Other than the foretasted, there were no known detrimental risks in participating in this study. The respondents were informed on the findings, specifically on how the learning strategy may affect their academic achievement. With this knowledge, they were assisted on which learning strategy was most suitable for them to succeed more academically. In the event that the questions put the students on a feeling of disadvantage, they were allowed to discontinue answering the item/s.

Justice equal sharing of possible risks and benefits among all parties that might profit from the research is necessary for justice. By lessening personal or institutional prejudices that can expose a portion of the population to dangers (especially those belonging to underrepresented or protected categories), researchers have an obligation to fairly choose research participants from the general population while enabling society to gain (Paxton, 2020).

Results and Discussion

This section provided the study's findings, which were displayed both textually and tabularly and demonstrated how student engagement and blended learning strategies predicted literacy development. The Data analysis and interpretation were carefully followed with its goal of attaining the research objectives. The tables and interpretations were arranged chronologically with its subheadings.

The Level for Blended Learning Strategies

Shown in Table 1 is the level of blended learning strategies with the indicators of face-to-face approach and online approach.

Table 1. *Level of Blended Learning Strategies*

Items	Mean	SD	Descriptive Level
Face to Face Approach	4.19	0.53	High
Online Approach	3.28	0.64	Moderate
Overall	**3.73**	**0.46**	**Moderate**

With a high descriptive level, the face-to-face approach possessed a standard deviation of 0.53 and a mean score of 4.19. Conversely, the online approach had a moderate descriptive level, 3.28 as the mean score and a standard deviation of 0.64. With a standard deviation of 0.46 and an overall mean score of 3.73, the two indicators were determined to fall at a moderate level. Overall, the results showed that respondents found the combination of online and in-person methods to be moderately monitored.

The Objective number one of this study which stated that: to describe the level of blended learning strategies in terms of in-person approach and electronic learning approach. Face to face approach was the actual interaction of teachers and the learners inside the classroom. While online approach was the interaction of teachers and learners using different technological flatforms. The implications of the data findings showed that face to face approach with high descriptive level had a great value on the effectiveness of integrated education. However, the online approach had moderately observed in the blended learning.

The result of this study supports both theoretical frameworks and empirical evidence related to the work of Russian psychologist Vygotsky in response to competing psychological paradigms (Kozulin,1990). He claimed that the development of higher-order cognitive skills is influenced by social interactions and culture. His understanding of the dynamic another factor contributing to his admiration is the interdependence between individual and social processes in the construction of knowledge (John-Steiner & Mahn, 1996).

The Level for Student Engagement

Table 2 below presents the result of student engagement with the three indicators the affective, behavioral and cognitive with a descriptive level of very high and a 4.31 on average with a 0.45 standard deviation. The affective engagement indicator was the highest of the three. The behavioral engagement came next, with an extremely high descriptive level, with a standard deviation of 0.46 and a mean score of 4.24. Cognitive engagement, on the other hand, had a very high descriptive level but the lowest mean score (4.23 and 0.56 standard deviation). The three indicators combined mean score was 4.26, a very high descriptive level, and a standard deviation of 0.41.

Table 2. *Level of Student Engagement*

Items	Mean	SD	Descriptive Level
Affective	4.31	0.45	Very High
Behavioral	4.24	0.46	Very High
Cognitive	4.23	0.56	Very High
Over all	**4.26**	**0.41**	Very High

The Objective number two of the study stated that: to describe the level of student involvement in terms of behavioral, affective, and cognitive. These three indicators had very high descriptive. The result indicated that the respondents exhibit extremely high levels of participation in every metric. This strong involvement had a great influence to literacy development. The consistency of these very high levels of engagement underscores the effectiveness of the strategies being implemented to foster a deeply engaging setting for learning.

The results of this research generally support the theoretical frameworks of the way that desired results for higher education institutions are perceived in connection to how students change is explained by Alexander Astin's theory of student involvement/engagement (1984) and grow because of their involvement in extracurricular activities. The empirical evidence was anchored to this theory, and the study's findings generally support the theoretical frameworks. Affective, behavioral, and cognitive signs are used. Affective engagement in this study refers to feelings associated with task investment. Affective engagement increases with a student's degree of interest, satisfaction, optimism, adherence to moral principles, interest, and a feeling of community (and decreases with worry, melancholy, tension, and boredom).

The educators may sustain their strategies that promote emotional connections to the material, active participation in learning activities, and deep cognitive involvement. Such efforts will likely contribute to even more significant improvements in students' literacy development.

The Level of Literacy Development

The Table 3 below presented the result of the level of Literacy Development. This literacy development had five indicators namely the vocabulary learning, grammar, reading, writing and speaking.

Table 3. *Level of Literacy Development*

Items	Mean	SD	Descriptive Level
Vocabulary Learning	3.72	0.67	High
Grammar	3.93	0.65	High
Reading	3.95	0.58	High
Writing	4.04	0.60	High
Speaking	4.04	0.61	High
Over all	**3.96**	**0.52**	**High**

Among these five indicators the speaking and writing had the highest mean score of 4.04 but they differ in standard deviation. Speaking has 0.61 standard deviation while writing has 0.60 standard deviation, but they are both having high descriptive level. However, with the same high descriptive level, vocabulary learning has the lowest mean score (3.72), with a 0.67 standard deviation with a good descriptive level, the mean score of these five indicators was 3.96, with a standard deviation of 0.52.

The third goal of this study is to describe the extent of students' literacy development in terms of vocabulary learning, grammar, writing, speaking and reading. The data indicated in the overall literacy development result that the respondents had a high level of literacy development across various indicators, including vocabulary, grammar, reading, writing, and speaking. Each of these areas scored high,

demonstrating that students feel confident in their abilities.

Most of the respondents feel confident in their skills, but there are differences in individual confidence levels. The students need additional support and enhancement in their vocabulary learning so that they will be develop and enhance their comprehension. Moreover, the high levels of literacy development are encouraging but they may continually support and tailor interventions to address individual needs, particularly in vocabulary learning.

The results of this investigation generally support the Theoretical frameworks and empirical evidence related to Constructivist and Vygotsky's sociocultural theory that learners build their understanding and knowledge through experiences and reflections on those experiences. The high levels of literacy development across various indicators suggest that students are effectively constructing their knowledge and skills.

Also, it highlights the significance that social interaction and cultural resources are to education. The high levels of literacy development may reflect the effective use of social and cultural tools in the learning environment, such as collaborative activities and meaningful context for language use.

Significance on the Relationship of Blended Learning Strategies and Student Engagement to Literacy Development

Presented in the Table 4 the statistical significance on connection between student engagement and mixed learning techniques to literacy development raging from 0.590* to 0.736*.

Table 4. *Significance on the Relationship of Blended Learning Strategies and Student Engagement to Literacy Development*

Independent Variables	Dependent Variable	r-value	r-square	p-value	Decision
Blended Learning Strategies	Literacy Development in English	0.590*	0.3481	0.0001	Reject Ho
Student Engagement		0.736*	0.5417	0.0001	Reject Ho

*p<0.05

This study's fourth goal is to determine whether blended learning strategies and literacy development are significantly correlated. The fifth goal was to determine whether or not student involvement and literacy progress are significantly correlated.

Since the coefficients were accompanied by a statistically significant with a p-value of 0.0001, which is below 0.05, the results showed that there a statistically significant connection between blended learning tactics and literacy development and between student engagement and literacy development.

Therefore, the null hypothesis, which stated that there is no meaningful connection between Blended Learning Strategies and Student Engagement to Literacy Development was rejected and conclude that there is a significant relationship between the blended learning strategies and literacy development.

The results of this study demonstrate significant positive relationships between both the blended learning approach and student engagement with literacy development. These findings have important implications for legislators and educators, suggesting that efforts to improve blended learning tactics and increase student engagement can lead to substantial improvements in literacy development.

The results support both theoretical perspectives and empirical evidence, highlighting the importance of interactive, engaging, and flexible learning environments in promoting literacy skills. The Constructivist theory (Lev Vygotsky 1989) supports the idea that students build their knowledge via involvement and worthwhile experiences. The significant relationships found in this study align with the theory, suggesting that both the blended learning approach and student engagement contribute to literacy development by providing interactive and engaging learning environments.

Empirical studies have shown that mixed learning, which blends online and in-person instruction, can enhance student outcomes by providing flexible and diverse learning experiences. The positive relationship found in this study supports these findings, indicating that a well-implemented blended learning approach can improve literacy development.

Regression Analysis on the Influence of the domains of Blended Learning Strategies to Literacy Development

This Table 5 presented the findings of a regression study looking at the influence of two domains of blended learning methodology both in-person and online approach on Literacy Development.

The standardized coefficient (Beta) of the face-to-face approach is 0.506, the 0.498 is the unstandardized coefficient B and 0.046 is the standard error (SE). The null hypothesis (Ho) is rejected with a p-value of 0.001 and a statistically significant t-value of 10.844.The face-to-face approach has a favorable and substantial impact on the development of literacy.

Table 5. *Regression Analysis on the Influence of the domains of Blended Learning Strategies to Literacy Development*

Independent Variables	Unstandardized Coefficients		Standardized Coefficient	t-value	p-value	Decision
	B	SE	Beta			
(Constant)	1.157	0.207				
• Face to Face Approach	0.498	0.046	0.506*	10.844	0.001	Reject Ho
• Online Approach	0.218	0.038	0.268*	5.750	0.001	Reject Ho

Dependent Variable: Literacy Development
R-0.621* R^2-0.386
F-ratio=92.849 p-value=0.001

The standard error (SE) is 0.046. With a statistically significant t-value of 10.844 and a p-value of 0.001, the null hypothesis (Ho) is rejected. This suggests that the Online Approach significantly and favorably affects the development of literacy as well.

Additionally, the correlation coefficient (R = 0.621) shows a moderately favorable association between the dependent variable (literacy development) and the independent variables (both in-person and online). The total model is statistically significant, indicating that Combined learning strategies together have a significant effect on literacy development, as evidenced by the R2 = 0.386, F-ratio = 92.849, and P-value = 0.001. Both domains had a positive impact on literacy development, as evidenced by the rejection of the null hypothesis, which asserted that no meaningful correlation existed between blended learning methodologies and student engagement with regard to literacy development.

Regression Analysis on the Influence of the domains of Student Engagement to Literacy Development

This Table 6 presented the results of A regression analysis examining the impact of various domains of student engagement the affective, behavioral, and cognitive on literacy development.

With a SE of 0.051, the affective domain's It has a standardized coefficient of beta of 0.113 and an unstandardized coefficient of B of 0.130. There is a p-value of 0.012 and the value of t is 2.520. The behavioral domain has a beta of 0.192, a SE of 0.059, and an unstandardized coefficient B of 0.219. The cognitive domain has a beta of 0.558, a SE of 0.047, and an unstandardized coefficient B of 0.516. 3.695 is the t-value, while 0.001 is the p-value. The t-value is 11.030 and p-value is 0.001. The p-value for all three indicators is less than 0.05.

Table 6. *Regression Analysis on the Influence of the domains of Student Engagement to Literacy Development*

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t-value	p-value	Decision
	B	SE	Beta			
(Constant)	0.283	0.215				
• Affective	0.130	0.051	0.113*	2.520	0.012	Reject Ho
• Behavioral	0.219	0.059	0.192*	3.695	0.001	Reject Ho
• Cognitive	0.516	0.047	0.558*	11.030	0.001	Reject Ho

Dependent Variable: Literacy Development in English

R-0.761* R^2-0.580

F-ratio=135.674 p-value=0.001

Therefore, the null hypothesis, which claimed there was no meaningful connection between blended learning strategies and student engagement to literacy development was rejected. This rejection concluded that the student engagement has a statistically significant positive influence on Literacy Development.

The six objective of this study which stated that: to determine which domain of blended learning and student engagement significantly predict literacy development. Based of the findings both blended learning strategies and student engagement predicts the literacy

development of the learners since both indicators of blended learning and literacy development had below 0.05 p-value the null hypothesis was rejected.

Conclusions

The are based on the findings or conclusions of the study strategies with its indicators the face to face and online approach was moderately observed. However, Student engagement was found to be highly observed with its three indicators the affective, behavioral, and cognitive with an overall indication of strong emotional investment, active involvement, and profound cognitive engagement during the educational process.

While literacy development was also rated high descriptive level reflecting well-developed skills in vocabulary, grammar, reading, writing, and speaking. The findings indicated a strong positive connection between student engagement and blended learning tactics to literacy development. Also, the Correlation analysis revealed a strong positive connection between student involvement and the application of mixed learning techniques to literacy development.

Furthermore, the Regression analysis showed that both blended learning and student engagement significantly predict literacy development with student engagement emerging as the stronger predictor which confirmed the significance of student engagement as an essential component in enhancing the efficacy of hybrid learning strategies.

The results of this study support the theoretical underpinnings, particularly those related to Constructivist learning theory and Self-Determination Theory. The findings align with the constructivist view that through meaningful conversations and active engagement, students build their knowledge. Constructivist learning theory holds that students acquire information via active participation and meaningful interactions.

With a mean score of 4.19 and a standard deviation of 0.53, the face-to-face technique demonstrated a high descriptive level. The constructivist idea that learning occurs best in social and interactive settings is supported by these findings, which show how well direct teacher-student contact promotes collaborative learning and profound knowledge.

The strong correlations between student engagement and literacy development support the Self-Determination Theory perspective, which posits that students are most engaged when their Autonomy, competence, and relatedness demands are satisfied. Affective engagement, for instance, which is defined by interest and contentment during in-person learning sessions, shows that relatedness—students' feeling of connection to teachers and peers—was successfully satisfied.

With a mean score of 3.28 and a standard deviation of 0.64, the online approach's moderate performance indicates that students' autonomy and competency in virtual learning environments may be better addressed. This study also reinforces the Community of Inquiry framework, highlighting the critical roles of social, cognitive, and teaching presence in fostering successful learning experiences, particularly in blended learning environments.

The recommendations of this study are based on the findings or results utilizing those items with the lowest ratings in the appended result per indicator.

Blended Learning Strategies

The study found that the online component of blended learning needed development, with a mean score of 2.78 and a standard deviation of 1.23, indicating a moderate descriptive level. To increase student involvement, educators should incorporate interactive resources like discussion boards, quizzes, and polls. Regular training and resources, including workshops or tutorials, should be offered by schools to help students become more proficient with online tools. In blended learning, these practical tactics seek to maximize online learning's efficacy and increase student engagement.

Student engagement

According to the study, students thought learning was uninteresting because the affective engagement indicator had a low descriptive level with a mean score of 1.85 and standard deviation of 1.30. Schools shall place a high priority on creating a learning environment that is emotionally supportive in order to address this.

To foster a feeling of community and belonging, educators might use tactics like cooperative group projects, peer mentorship programs, and frequent check-ins. Furthermore, promoting regular and meaningful interactions between teachers and students can greatly improve affective engagement, especially for children who struggle emotionally. To improve general participation, schools might also make sure that kids have access to counseling or other support services for emotional difficulties.

Literacy development

Lastly, among the five indicators of literacy development speaking had t3.83 as the lowest mean score. and a standard deviation of 1.03 Teachers shall place a high priority on providing organized practice opportunities through class discussions, debates, and presentations in order to address speaking, the literacy development indicator with the lowest score.

Lessons shall incorporate exercises that focus on clarity, fluency, and pronunciation, like role-playing or recitations. While storytelling sessions or public speaking competitions can interest and challenge students, group activities that promote peer-to-peer interaction can boost confidence.

The goal of these research-based techniques is to raise speaking abilities to a level that is widely recognized. Using interactive techniques like games and flashcards to develop vocabulary and applying grammar through sentence construction challenges or real-world writing activities can further improve reading, writing, grammar, and vocabulary—all of which currently show high descriptive levels. Level-appropriate materials combined with instruction in summarizing and questioning techniques might help strengthen reading comprehension.

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