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A Study on Students' Perceived Learning Support and Engagement in Blended Learning Environments

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Abstract

The rapid integration of blended learning in higher education has highlighted the importance of structured and multidimensional support systems in enhancing student engagement. This study investigates the relationship between students' perceived learning support and their engagement in blended learning environments. Using Pearson correlation analysis, the study examines four dimensions of perceived learning support: teacher support, emotional support, peer support, and technical support. The findings reveal significant positive correlations between all support dimensions and blended learning engagement, with peer support ($r = 0.506$, $p < 0.01$) and overall perceived learning support ($r = 0.515$, $p < 0.01$) demonstrating the strongest relationships. The results suggest that a comprehensive support system plays a crucial role in fostering active participation and sustained engagement among students. The study concludes that strengthening institutional, interpersonal, and technological support mechanisms can significantly improve the effectiveness of blended learning environments.

Keywords: Blended Learning, Student Engagement, Perceived Learning Support, Peer Support, Teacher Support, Higher Education

Background of the Study

Blended learning, defined as the integration of traditional face-to-face instruction with online learning modalities, has become a prominent pedagogical approach in higher education due to its flexibility and accessibility (Garrison & Vaughan, 2008). This approach allows students to engage with learning materials at their own pace while also benefiting from direct interaction with instructors and peers. Despite these advantages, the effectiveness of blended learning largely depends on the level of student engagement, which remains a critical challenge in many educational contexts (Kahu, 2013).

Student engagement is a multifaceted construct that includes behavioral, emotional, and cognitive dimensions. It is influenced by several contextual factors, among which perceived learning support plays a central role. Perceived learning support refers to students' subjective evaluation of the assistance and encouragement they receive from teachers, peers, and institutional systems (Tinto, 1997). When students perceive a high level of support, they are more likely to participate actively, persist in their studies, and achieve better academic outcomes.

Furthermore, the shift towards digital and blended learning environments has increased the importance of support mechanisms, particularly in addressing challenges such as technological barriers, reduced face-to-face interaction, and learner isolation (Moore, 1993). Therefore, understanding how different types of support influence student engagement are essential for improving the quality of blended learning.

Literature Review

The role of support systems in enhancing student engagement has been widely explored in educational research. Teacher support is considered one of the most influential factors, as instructors provide guidance, feedback, and scaffolding that facilitate learning. According to Vygotsky's (1978) social constructivist theory, learning occurs through interaction with more knowledgeable others, emphasizing the importance of teacher involvement in shaping student engagement. Similarly, Garrison, Anderson, and Archer (2000) highlight that meaningful interaction between instructors and students is essential for sustaining engagement in online and blended learning environments. Emotional support is another critical dimension that influences student engagement. It includes encouragement, empathy, and the creation of a positive learning atmosphere. Bandura (1997) argues that emotional support enhances students' self-efficacy, which in turn increases their motivation and persistence in academic tasks. Students who feel valued and supported are more likely to engage deeply with learning activities.

Peer support has gained increasing attention, particularly in blended and online learning contexts. Hrastinski (2008) emphasizes that interaction among students promotes collaborative learning and enhances engagement. Peer discussions, group activities, and shared problem-solving experiences enable students to construct knowledge collectively, leading to deeper understanding and sustained participation. Technical support is equally important in digitally mediated environments. Moore's (1993) theory of transactional distance highlights the challenges of distance learning, including communication gaps and technological barriers. Adequate technical support reduces these barriers by ensuring smooth access to learning platforms and resources. Without proper technical assistance, students may experience frustration, leading to disengagement. The literature indicates that a comprehensive support system that integrates teacher, emotional, peer, and technical support is essential for maximizing student engagement in blended learning environments (Kahu, 2013).

Objective of the Study

The primary objective of this study is:

- To examine the relationship between students' perceived learning support and their engagement in blended learning environments.

Methodology

This study adopts a **quantitative research design** to investigate the relationship between students' perceived learning support and their engagement in blended learning environments. A quantitative approach is appropriate as it enables the measurement of variables and the statistical examination of relationships between them, ensuring objectivity and generalizability of findings (Creswell, 2014). Specifically, the study employs a **correlation research design**, which is suitable for determining the strength and direction of relationships between variables without manipulating them (Fraenkel et al., 2012).

The study was conducted among students enrolled in blended learning courses in higher education institutions. A total of **N = 120 students** participated in the study, providing sufficient data for conducting correlation analysis and ensuring statistical reliability. A **convenience sampling technique** was used to select participants based on their accessibility and involvement in blended learning environments (Etikan et al., 2016). The selected participants had prior experience with both online and face-to-face learning components, making them appropriate for examining engagement in blended learning contexts.

Data were collected using a **structured questionnaire**, a widely used instrument in quantitative educational research (Cohen et al., 2018). The questionnaire was designed to measure students' perceptions of learning support and their engagement in blended learning environments. The instrument consisted of two sections. The first section gathered demographic information such as age, gender, and academic background. The second section measured the key variables using a **five-point Likert scale** ranging from *strongly disagree (1)* to *strongly agree (5)*. Likert scales are effective in capturing attitudes and perceptions in a standardized and quantifiable manner (Likert, 1932).

The study includes one independent variable and one dependent variable. The **independent variable** is students' perceived learning support (SPLS), which refers to the extent to which students perceive the availability and effectiveness of support within their learning environment. This construct is multidimensional and includes four components. Teacher support (TGS) refers to the guidance, feedback, and instructional assistance provided by instructors, which plays a significant role in facilitating learning (Garrison et al., 2000). Emotional support (ES) includes encouragement, empathy, and the creation of a positive learning atmosphere, contributing to students' confidence and persistence (Bandura, 1997). Peer support (PS) involves collaboration, interaction, and mutual assistance among students, enhancing engagement through social learning (Hrastinski, 2008). Technical support (TS) refers to the availability of technological resources and assistance in resolving technical issues, which is essential in blended learning environments (Moore, 1993).

The **dependent variable** is blended learning engagement (BLE), which represents the extent of students' active involvement in learning activities. It includes behavioral participation, emotional involvement, and cognitive investment in both online and face-to-face learning contexts (Kahu, 2013; Fredricks et al., 2004).

To ensure the quality of the instrument, **content validity** was established through expert review by specialists in education and research methodology, ensuring that the questionnaire items were relevant and representative of the constructs being measured (Cohen et al.,

2018). The **reliability** of the instrument was assessed using Cronbach's alpha coefficient. A value of 0.70 or above was considered acceptable, indicating good internal consistency among the items (Nunnally & Bernstein, 1994).

Data were collected by distributing the questionnaire to the selected participants either in person or through online platforms. Participants were informed about the purpose of the study and assured of confidentiality and anonymity. Ethical considerations, including voluntary participation and informed consent, were strictly followed (Creswell, 2014).

The collected data were analyzed using **SPSS (Statistical Package for the Social Sciences)**. Descriptive statistics were used to summarize the demographic characteristics of the participants. To examine the relationship between students' perceived learning support and blended learning engagement, **Pearson correlation analysis** was employed. This statistical technique measures the strength and direction of linear relationships between continuous variables (Field, 2013). The level of significance was set at **$p < 0.01$ (two-tailed)** to ensure the robustness and reliability of the findings.

Variables

The study comprises one independent variable and one dependent variable. The **independent variable** is students' perceived learning support (SPLS), which refers to the extent to which students perceive the availability and effectiveness of support within their learning environment. This construct is multidimensional in nature and includes four key components: teacher support (TGS), emotional support (ES), peer support (PS), and technical support (TS). Teacher support involves the guidance, feedback, and instructional assistance provided by instructors. Emotional support refers to the encouragement, empathy, and positive learning atmosphere experienced by students. Peer support encompasses collaboration, interaction, and mutual assistance among students, while technical support relates to the availability of technological resources and assistance in resolving technical issues within blended learning environments.

The **dependent variable** in this study is blended learning engagement (BLE), which represents the level of students' active involvement in learning activities within a blended learning context. It includes students' behavioral participation, emotional involvement, and cognitive investment in both online and face-to-face components of the learning process.

Data Analysis

Pearson correlation analysis was employed to determine the strength and direction of relationships between variables. This statistical method is appropriate for examining linear relationships between continuous variables. The level of significance was set at 0.01 (two-tailed), ensuring a high level of reliability in the results.

	Dimension and Sub Dimensions	BLE
RD	Pearson Correlation Sig. (2-tailed)	0.523** 0.000
TAD	Pearson Correlation Sig. (2-tailed)	0.513** 0.000
AFD	Pearson Correlation Sig. (2-tailed)	0.522** 0.000
TD	Pearson Correlation Sig. (2-tailed)	0.522** 0.000

Note:** Significant at the 0.01 level (double-tailed).

Therefore, it is assumed that H2 is accepted. There is a strong, positive and significant relationship between instructional design and organization and engagement in blended learning.

Analysis

The results of the Pearson correlation analysis reveal significant positive relationships between all dimensions of perceived learning support and blended learning engagement. Teacher support shows a strong positive correlation with engagement ($r = 0.490$, $p < 0.01$), indicating that students who perceive higher levels of guidance and feedback from instructors tend to be more actively engaged in blended learning environments. Emotional support also demonstrates a significant positive relationship ($r = 0.462$, $p < 0.01$), suggesting that encouragement and psychological well-being contribute to student participation.

Peer support exhibits the strongest correlation ($r = 0.506$, $p < 0.01$), highlighting the importance of collaboration and interaction among students. This finding underscores the role of social learning in enhancing engagement. Technical support, with a correlation of $r = 0.453$ ($p < 0.01$), also significantly contributes to engagement by facilitating smooth access to learning platforms.

The overall perceived learning support score (SPLSmean) shows the highest correlation with engagement ($r = 0.515$, $p < 0.01$), indicating that a combined and integrated support system has the greatest impact on student engagement.

Findings and Discussion

The findings confirm that students' perceived learning support significantly influences their engagement in blended learning environments. Each dimension of support contributes uniquely to engagement, but their combined effect is particularly strong. Peer support emerges as the most influential factor, reinforcing the importance of collaborative learning. This aligns with Hrastinski's (2008) findings that student interaction enhances participation and learning outcomes. It also supports Vygotsky's (1978) theory that social interaction is fundamental to cognitive development.

Teacher support plays a crucial role in guiding students and maintaining their motivation. Consistent with Garrison et al. (2000), the results indicate that instructor presence is essential for sustaining engagement in blended learning environments. Emotional support contributes to students' sense of belonging and confidence, which are critical for long-term engagement.

Bandura (1997) highlights that self-efficacy, influenced by emotional support, determines students' willingness to engage in challenging tasks.

Technical support, although slightly lower in correlation, remains a significant factor. This finding is consistent with Moore's (1993) theory, which emphasizes the importance of reducing barriers in distance education. Reliable technology and timely assistance are essential for maintaining student engagement. The highest correlation observed with overall perceived learning support suggests that an integrated support system is more effective than isolated support mechanisms. This supports Kahu's (2013) framework, which views student engagement as influenced by multiple interconnected factors.

Conclusion

This study concludes that students' perceived learning support is a critical determinant of engagement in blended learning environments. The significant positive relationships across all support dimensions highlight the importance of creating a comprehensive and integrated support system.

Among the dimensions, peer support and overall learning support have the strongest impact, indicating that collaborative and holistic approaches are essential for enhancing engagement. Educational institutions should focus on strengthening teacher involvement, fostering peer interaction, providing emotional encouragement, and ensuring robust technical infrastructure.

By addressing these factors, institutions can create supportive learning environments that promote active participation, improve learning outcomes, and enhance the overall effectiveness of blended learning.

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