

Hybrid Learning with the FlexSpace platform

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Abstract

This study aims to explore opinions and satisfaction regarding hybrid learning management using the FlexSpace platform in the subject Digital Wealth. Additionally, it seeks to identify a standard FlexSpace design model that meets learners' satisfaction in hybrid learning environments. The integration of the FlexSpace platform into daily work can enhance learning efficiency, foster skill development, and improve communication and collaboration among diverse groups. By supporting the learning and skill development of students, organizational staff, external partners, and colleagues, FlexSpace contributes to creating a modern, efficient learning and working environment. Hybrid learning management with the FlexSpace platform offers valuable insights into various aspects that can advance teaching methodologies and technological skills. Factors such as technical and psychological support, community building, continuous assessment and improvement, and effective resource allocation significantly contribute to the success of hybrid learning. Adapting to hybrid learning with the FlexSpace platform has both positive and negative impacts. However, effective support and continuous enhancements can mitigate challenges and amplify benefits, ultimately making teaching and learning through FlexSpace more impactful and efficient.

Keywords: Hybrid Learning, Electronic Lessons, FlexSpace

1. Introduction

In the current global landscape, characterized by a knowledge society aimed at enhancing the quality of life, there is a heightened awareness for educational reform that emphasizes lifelong learning principles.(UNESCO Global Education Monitoring Report 2024/5). This paradigm shift seeks to transform societies into hubs of intellect and continuous learning, with the belief that every learner possesses the ability to develop and learn, aspiring to be virtuous, skilled, and happy individuals . (Brookings Institution, 2024; International Institute of Education Development [iED], 2024). Aligned with the National Education Act of 1999, which places a significant emphasis on learning reform as its core principle, education should be organized based on the principle that every learner has the capability to learn and develop oneself. Learners are considered the utmost priority, and the educational process must foster their natural ability and potential. Article 22 under Section 4 of the Act addresses the principles of educational management, highlighting the importance of recognizing that every learner can learn and develop themselves. (National Education Act, 1999). Furthermore, Article 24 mandates educational institutions and relevant agencies to tailor content and learning activities to align with the diverse interests and capabilities of learners. It emphasizes the need to cultivate critical thinking, management skills, problem-solving abilities, and the application of knowledge to prevent and address issues. (The National Education Act.(1999)

The research results found that the study on the development of a hybrid learning model aimed at enhancing the competency of teacher education students in innovative learning media development revealed seven key components: (1) Learning Environment, (2) Instructional Design, (3) Lesson Design, (4) Class Community, (5) Engagement and Interactivity, (6) Measurement and Evaluation, and (7) Feedback and Improvement. The evaluation of the model's suitability indicated a high level of appropriateness. This result may be due to the model's alignment with contemporary learning contexts, as well as its congruence with principles and concepts proposed by Yaso (2017), who suggested that hybrid learning systems integrate multiple instructional modules. These modules combine online, self-directed learning with traditional classroom sessions, emphasizing interaction. The objective of this model is to enhance teaching and learning efficiency, thereby increasing educational effectiveness and outcomes. Korbuakaew, T. (2023).

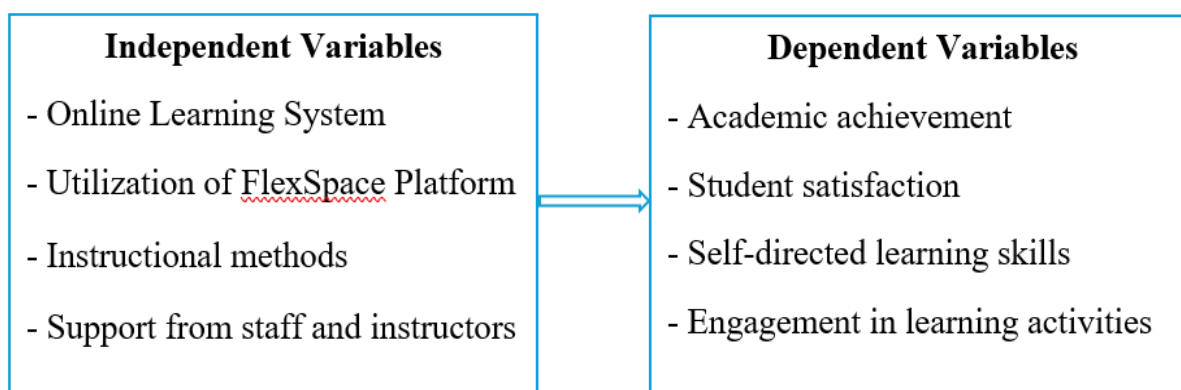
1.1 Research Objective

This research aims to:

1. Investigate opinions and satisfaction with hybrid learning arrangements using the FlexSpace platform in the course "Get Rich with Digital."
2. Examine the standard FlexSpace design model that aligns with learner satisfaction in hybrid learning environments.

2. Conceptual Framework

Figure 1. Conceptual Framework



This conceptual framework depicts the relationships between the three key constructs that influence learner satisfaction with online learning and activities: learning content, learning environment, and learning experience. Learning content refers to the material that learners are expected to master. The quality and relevance of the learning content are important factors that influence learner satisfaction. Learning environment refers to the platform or environment in which the learning takes place. The ease of use and accessibility of the learning environment also affect learner satisfaction. Learning experience refers to the learner's overall experience of the learning process. This includes the level of interaction with the content and the instructor, as well as the opportunities for learners to collaborate with others.

The framework proposes that Hybrid learning is a pedagogical approach that seamlessly integrates the benefits of online learning and face-to-face instruction. By combining diverse teaching methods, it fosters interactions between instructors and students, as well as among students themselves, through the use of world-class tools and software. This approach stimulates active learning and critical thinking, while also enabling students to leverage modern technology for enhanced learning experiences.

This conceptual framework can be used to This study explores the implementation of a hybrid learning model that combines the flexibility of online learning with the structure of traditional classroom instruction. The hybrid approach aims to foster student engagement and improve learning outcomes by providing a variety of learning experiences. Yaso, M. (2017)

3. Methodology

This research focuses on undergraduate students enrolled in the Digital Millionaire at Suan Sunandha Rajabhat University. The target population comprises the students registered for this specific course, with a total population of 3,500. A sample group of 346 undergraduate students was selected using Simple Sampling based on Krejcie & Morgan's (1970) table. The research employs a survey-based data collection method, involving two main aspects:

1) General Information: The first part of the survey gathers general demographic information about the students enrolled in the course, providing a comprehensive understanding of the sample group.

2) Student Opinions and Satisfaction with Hybrid Learning Management with FlexSpace Platform: The second part of the survey assesses student opinions and satisfaction levels with regard to FlexSpace activities within the course.

In this study, the Independent Variable (IV) is the implementation of Hybrid Learning Management with FlexSpace Platform activities, while the Dependent Variables (DV) pertain to the levels of student opinions and satisfaction regarding these activities. To measure these variables, a structured questionnaire in narrative form was developed, adhering to Likert Scale standards. The scoring and interpretation criteria for the questionnaire responses are categorized as follows:

Table 1 Level of Satsifaction

Score	Level of Satsifaction
5	Very high
4	mean High
3	mean Moderate
2	mean Low
1	mean Very Low

Table 2 Likert Scale standards:

Mean Score Range	Interpretation
4.51 – 5.00	Very high
3.51 – 4.50	Highest
2.51 – 3.50	Moderate
1.51 – 2.50	Low
1.00 – 1.50	Very low

The research is conducted at the Office of General Education and Electronic Learning Innovation, Suan Sunandha Rajabhat University, and spans from December 2023 to August 2024. Data analysis will involve the calculation of percentages, overall averages, and standard deviations to derive meaningful insights from the collected questionnaire responses.

4. Results

A Likert scale is a commonly used tool in survey research to measure respondents' attitudes, opinions, or perceptions on a particular subject. The scale typically ranges from strongly agree to strongly disagree, providing a structured way to collect and analyze quantitative data. Here's an example of a 5-point Likert scale with corresponding labels:

Table 3 User Satisfaction with the FlexSpace Learning System

Aspect	Mean (M)	Standard Deviation (SD)	Satisfaction Level
System Usability and Performance			
1. Ease of access to the FlexSpace system	4.75	0.44	Very high
2. Speed and stability of the system	4.78	0.41	Very high
3. Ease of menu navigation	4.77	0.42	Very high
Learning Experience			
4. Satisfaction with content and learning activities	4.75	0.44	Very high
5. Effectiveness compared to traditional classrooms	4.68	0.47	Very high
6. Interaction and participation in activities	4.69	0.46	Very high
Learning Tools and Resources			
7. Tools and learning materials provided	4.65	0.48	Very high
8. Use of supportive technologies (e.g., video, chat)	4.67	0.47	Very high
9. Variety and quality of learning resources	4.68	0.47	Very high
Technical and Instructor Support			
10. Technical support and problem resolution	4.69	0.46	Very high
11. Guidance and support from instructors	4.65	0.48	Very high

Aspect	Mean (M)	Standard Deviation (SD)	Satisfaction Level
12. Responsiveness to questions and issues	4.67	0.47	Very high
Flexibility and Comfort			
13. Flexibility in participation	4.68	0.47	Very high
14. Comfort and privacy when using FlexSpace	4.69	0.46	Very high
Learning Outcomes and Overall Satisfaction			
15. Overall learning experience satisfaction	4.65	0.48	Very high
16. Valuable and enjoyable learning experience	4.64	0.48	Very high
17. Knowledge and skill improvement	4.68	0.47	Very high
18. Perceived progress in learning	4.69	0.46	Very high
19. Confidence in applying learned skills	4.65	0.48	Very high
20. Satisfaction with learning outcomes	4.76	0.43	Very high
Overall Satisfaction	4.69	0.46	Very high

This table demonstrates the consistently high levels of satisfaction across all surveyed aspects, highlighting the effectiveness of the FlexSpace system. Student feedback on Hybrid Learning Management with the FlexSpace Platform is overwhelmingly positive. The overall satisfaction level is 4.69, with a standard deviation of 0.46, indicating a "very high" satisfaction classification. The survey assessed student satisfaction across 20 key aspects of the FlexSpace learning system, focusing on ease of use, system performance, learning outcomes, and user experience. The findings underscore a high level of satisfaction across all dimensions, reinforcing the platform's effectiveness in supporting hybrid learning.

5. Findings

5.1 System Performance and Usability

- The performance and usability of the system were evaluated based on user satisfaction with various aspects. The results indicated high levels of satisfaction with system accessibility (M = 4.75, SD = 0.44) and stability (M = 4.78, SD = 0.41). Additionally, users rated the interface as intuitive and easy to navigate, yielding an average score of 4.77 (SD = 0.42). These findings suggest that the system meets user expectations for functionality and ease of use, demonstrating both reliability and a user-friendly design.

5.2 Learning Experience

- The course content and activities received high ratings (M = 4.75, SD = 0.44), with the majority of students agreeing that the FlexSpace platform offers an effective learning experience, often comparable to or surpassing traditional classroom learning (M = 4.68, SD = 0.47). Furthermore, there was strong satisfaction with the quality of learning tools and resources, with scores ranging from M = 4.65 to M = 4.69. These findings indicate that FlexSpace is well-received by students for both its content and the resources provided, highlighting its effectiveness in delivering quality learning experiences.

5.3 Interaction and Support

- Students expressed high satisfaction with the interactive opportunities and active participation in learning activities, scoring an average of $M = 4.69$ ($SD = 0.46$). Additionally, feedback on technical and instructor support was positive, with responsiveness and effectiveness being highly rated, as indicated by scores ranging from $M = 4.65$ to $M = 4.67$. These findings highlight the effectiveness of both the interactive learning environment and the support systems in enhancing students' learning experiences.

5.4 Learning Outcomes and Value

- The system was highly rated for its effectiveness in fostering knowledge acquisition and skill enhancement, with an average score of $M = 4.68$ ($SD = 0.47$). Students reported significant progress and increased confidence in applying the skills they learned, as evidenced by a score of $M = 4.69$ ($SD = 0.46$). Overall, learning outcomes were rated exceptionally high, with a mean score of $M = 4.76$ ($SD = 0.43$), indicating that the system effectively contributed to student success and skill development. These results suggest that the system plays a key role in enhancing both knowledge and practical abilities, leading to positive learning experiences.

6. Conclusion

The findings from the user satisfaction survey underscore the effectiveness and user-friendliness of the FlexSpace learning system in delivering a high-quality educational experience. Students expressed uniformly high satisfaction across all evaluated dimensions, with an overall mean satisfaction score of **4.69** ($SD = 0.46$), categorized as "highest" satisfaction.

Key insights include:

- The system's **ease of access, stability, and usability** were praised, ensuring a seamless user experience.
- Students found the **content, tools, and resources** engaging and effective, supporting a variety of learning needs and preferences.
- Strong technical and instructor support contributed to students' confidence and satisfaction, enhancing the learning experience.
- The system successfully fostered **active participation, progress, and skill development**, comparable to or exceeding traditional classroom settings.

These results demonstrate that FlexSpace effectively bridges the gap between technology and education, offering a flexible, reliable, and interactive platform that supports both individual and collaborative learning. The system's ability to consistently meet and exceed user expectations positions it as a valuable tool for modern education, particularly in hybrid and online learning environments. Further research and development could focus on maintaining the system's strengths while addressing any emerging needs to ensure continued user satisfaction and educational success.

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