

Innovative Research on the Application of Flexible Learning in Classroom Teaching at Suan Sunandha Rajabhat University in Thailand

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Abstract: This article aims to introduce an innovative approach to classroom student participation and academic performance in a flexible learning environment at Suan Sunandha Rajabhat University in Thailand. To achieve this goal, a series of theories, concepts, and related research were reviewed and a comprehensive model of relevant factors was constructed. The research design adopted a mixed methods approach, utilizing quantitative research to test the relationships between variables in the model, followed by qualitative research to gain a deeper understanding of how these factors affect students' grades. Combining the results of quantitative and qualitative research can provide guidance for improving the performance of Suan Sunandha Rajabhat University students in flexible learning systems in Thailand.

Keywords: Classroom teaching; Student performance; Student participation

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1. Introduction

Flexible learning is crucial in today's fast-paced and dynamic world as it satisfies the different needs and environments of learners. This method allows individuals to follow their own preferences to pursue education and skill development, effectively balancing their personal, professional, and academic commitments. Flexible learning promotes inclusivity by eliminating barriers to education, such as geographical limitations or physical disabilities. It encourages innovation in teaching methods and technologies and cultivates learners' participation and enthusiasm. Ultimately, flexible learning enables individuals to acquire knowledge and skills in a way that suits their unique environment, promotes lifelong learning, and fosters sustained personal and professional growth. Although flexible learning has many benefits, its implementation also faces many issues. The main problem is that the developed flexible learning system cannot meet the needs of students and motivate them.

2. Literature review

During the learning process, grades have a significant impact on students' motivation and engagement, thereby affecting students' grades. Therefore, it is necessary to understand which factors are necessary through research and analysis. This article mainly focuses on building a flexible learning environment factor model in the classroom, which can affect students' grades, make meaningful discoveries, enrich theoretical understanding, and help improve existing (or create a new) flexible learning platform for better student participation and achievement.

2.1. Concept of flexible learning

Flexible learning is an educational approach that allows learners to choose the time, place, and pace of their learning, incorporating a variety of instructional methods and technologies ^[1]. With a student-centered teaching and learning approach, flexible learning provides learners with the autonomy to tailor their learning experiences, accommodating diverse learning styles and preferences ^[2], and involves the use of various instructional modes, including face-to-face in-class learning, online learning, and hybrid models, allowing students to choose the mode that best suits their needs ^[3].

2.2. In-class learning

Based on many studies, such as Jimerson *et al.* ^[2], we can conclude that the aspects that make up the in-class learning factor are teaching contents, lecturer characteristics, teaching methods, and class environment. The use of indirect influence in teaching includes accepting students' feelings, giving admiration, bringing students' ideas for application, and asking questions, which will encourage students to express themselves, develop self-confidence, and achieve higher results in learning than teaching that uses direct influence, such as lectures and exercises. In short, the relationship between teachers and students greatly influences academic achievement.

2.3. Online learning

Online teaching refers to learning through the Internet or intranet, where the content of the lesson consists of text, images, audio, video, and other multimedia sent to the learner through a web browser by the learner and the teacher. Students can contact or consult with peers and teachers to exchange opinions with one another in the same way as studying in a regular classroom. Scholars ^[4,5] studied factors affecting online learning management and found that the management of online teaching in terms of content, lessons, practice formats, teaching methods, quality of use of learning media and equipment, and assessment plays an important role in students' online learning, as shown in the application of the online test bank system, which provides suggestions for students to review the relevant online lessons related to their weaknesses and significantly helps improve students' achievement ^[6,7].

2.4. Technology acceptance model

The technology acceptance model (TAM) is a theoretical framework that explores the psychological factors influencing users' acceptance of information technology. It posits that perceived ease of use and perceived usefulness are key determinants of users' attitudes and behavioral intentions toward technology adoption. It has been influential in understanding and predicting users' adoption behavior. There are many studies that explore the relationship between the acceptance of technology in educational contexts and student achievement. For example, Barbour and Siko explored factors influencing students' perceptions of success in mathematics, including their use of technology.

2.5. Family support

According to Morrow and Wilson's research ^[8], students with high academic achievement have parents who praise, accept, show interest, understand, and make them feel like they are part of the family. Contrary to students with low academic achievement, they have parents who like to intimidate, are overly strict with children, often punish children, or are very protective of children. Therefore, the atmosphere in the home is tense and conflicting. Pascarella and Terenzini ^[9] conducted a comprehensive longitudinal study to investigate the impact of family support on student learning and growth in higher education. Their findings demonstrated that family support, which included emotional encouragement, financial aid, and academic coaching, had a significant impact on kids' academic success and retention in college.

2.6. Concept of motivation

The term "motivation" describes the internal or external forces that propel someone's behavior, activities, and exertion in the direction of reaching a specific objective or result. Motivation gives people the will and vigor to start and keep going for their goals, get beyond obstacles, and complete their tasks. Abraham Maslow described motivation as the force that propels people to satisfy their needs and realize their full potential. Humans are motivated by a set of basic needs that are placed in a hierarchical order. The first order satiates their basic physiological needs before being motivated to pursue higher-level needs, including safety needs, social needs, esteem needs, and self-actualization. There are two types of motivation: Intrinsic motivation is something driven from within a person, such as attitude, opinion, curiosity, interest, intention, satisfaction, pride, needs, wants, desires, etc. The second type of motivation is extrinsic motivation, which comes from external factors. This type of motivation is driven by rewards or outcomes that are separate from the activity itself, such as receiving money, grades, praise, recognition, or avoiding punishment. Extrinsic motivation is influenced by external incentives rather than internal satisfaction.

3. Analysis of the variables and independent variables that affect classroom teaching

Through a questionnaire and classroom interviews with university students from a certain college in Suan Sunandha Rajabhat University, data was obtained and subjected to simple data analysis to analyze the variables and independent variables that affect classroom teaching (**Figure 1**).

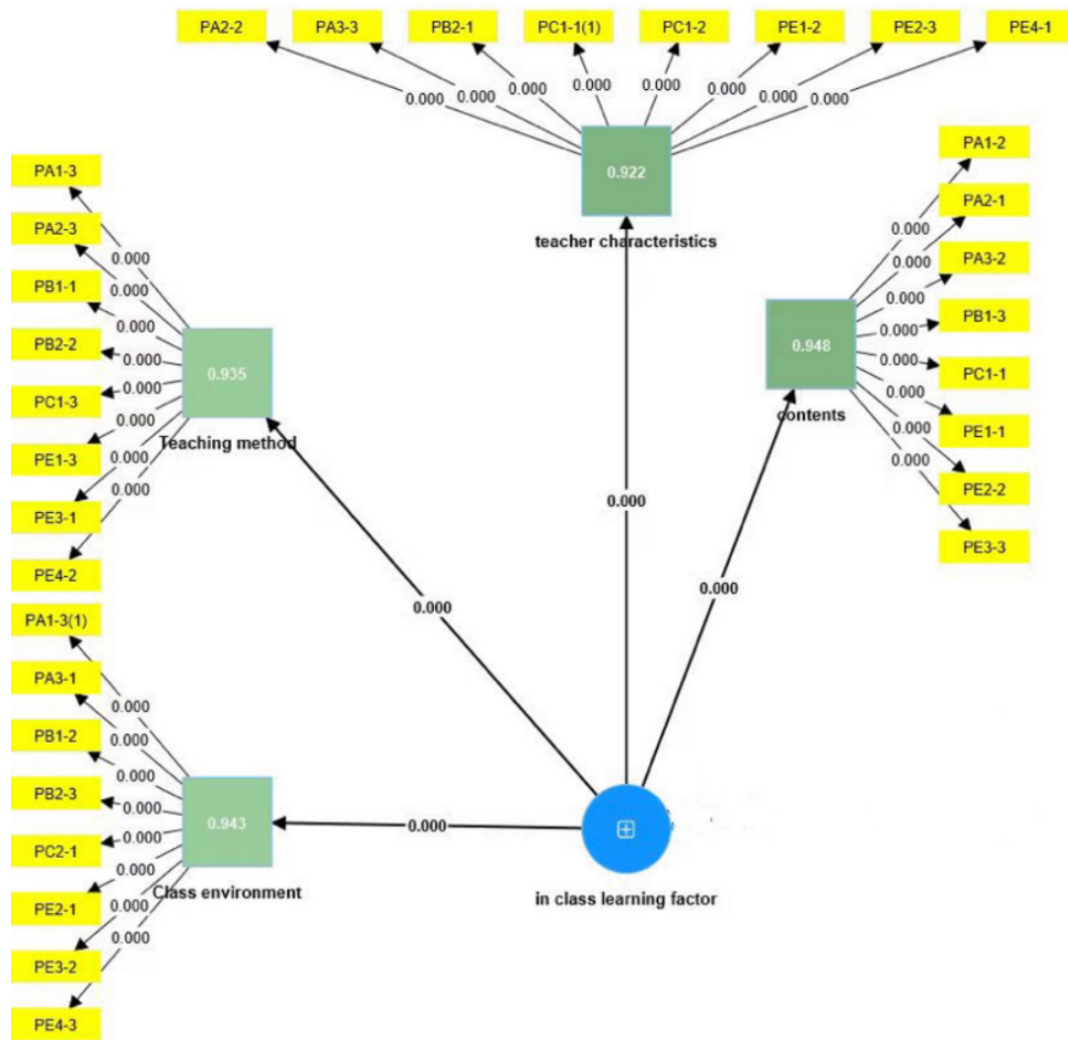


Figure 1. Analysis of factors influencing classroom teaching data

4. Conclusion

The research design of this study is a mixed methods approach. It starts with quantitative research using a questionnaire as a data collection tool to enable students with an appropriate sample size to learn a flexible learning system. To ensure the structure of the model, we analyzed the relationship between variables that affect classroom teaching.

Disclosure statement

The authors declare no conflict of interest.

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