ANALYZING FACTORS INFLUENCING IN ONLINE LEARNING: PATTERNS AND PRACTICES

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ABSTRACT

This research explores student satisfaction with Analyzing Factors Influencing in Online Learning: Patterns and Practices and aims to enhance the effectiveness of online learning management. The study involved 400 undergraduate students at Suan Sunandha Rajabhat University enrolled in general education courses. Data were collected through questionnaires and analyzed using statistical methods, including percentages, means, and standard deviations. The findings reveal that students who participated in the study a high level of satisfaction with high level of satisfaction with online learning management. The factors are categorized into three dimensions: 1) instructional management, 2) attitudes towards teaching and learning, and 3) challenges arising from online learning. The findings indicate a high level of impact (mean = 4.10, S.D. = 0.54) across these dimensions. The results by dimension, the highest-rated factor is challenges stemming from online learning (mean= 4.26, S.D. = 0.52). Attitudes towards teaching and learning (mean = 4.19, S.D. = 0.57), and instructional management (mean = 3.85, S.D. = 0.53) is rated slightly lower. This research underscores the significance of addressing challenges related to online learning, as perceived by undergraduate students. Moreover, understanding their attitudes towards teaching and learning, as well as enhancing instructional management practices, is crucial for optimizing the online learning experience.

Keywords: Factors, Online Learning, Patterns and Practices

INTRODUCTION

The global outbreak of the novel coronavirus, COVID-19, since the year 2019 have ushered in an unprecedented era in human history. This viral outbreak has not only claimed a significant number of lives worldwide but has also cast a profound impact on the way people live, disrupting various facets of society, including the economy and education systems. (Covid-19,2022). Thailand,among other nations, has experienced the far-reaching consequences of the pandemic, prompting the Ministry of Higher Education, Science, Research, and Innovation to address the implications on the academic sector. (Ministry of Education of Thailand, 2020). The impact of COVID-19 on education has been profound, requiring a paradigm shift in the way teaching and learning are conducted. (Khasasin.R,2021). The Ministry's directive not only mandated the suspension of physical classes but also urged institutions to harness the power of online education to ensure the continuity of academic activities. This transition to online learning has necessitated significant adjustments from both educators and students, as they navigate a virtual learning environment characterized by the use of various online tools and platforms. Against the backdrop of the ongoing global health crisis, understanding the nuances of online learning becomes crucial for educators, policymakers, and institutions. This research

will delve into the specific tools and technologies employed in online teaching, such as Zoom, Google Classroom, Google Meet, Microsoft Teams, and Google Hangouts, and analyze their effectiveness in facilitating remote learning experiences (Phonpakdee.R, 2023).

Education management at the tertiary level plays a crucial role in cultivating learners who possess enhanced intellectual abilities, knowledge, and skills that align with the dynamic needs of society. Education, as a process of acquiring knowledge and experiences, aims to foster intellectual growth, equip individuals for professional pursuits, and contribute to the overall development of a nation. Given its paramount importance, education must be administered systematically with clear objectives to enhance the quality of individuals. Learning management, therefore, functions as a tool that propels learners toward their ultimate goal: success in life. The key components in effective education management include educators, instructional activities, curriculum design, assessment and evaluation, and factors influencing the teaching and learning process. Suan Sunandha Rajabhat University, operating at the tertiary level, stands as an institution committed to providing quality education. The university's continuous efforts in efficient learning management align with the standards set by the Office of the Higher Education Commission (OHEC), ensuring that the education imparted meets the stipulated qualifications (Pongsena,S 2022).

The Office of General Education and Innovative Electronic Learning, Suan Sunandha Rajabhat University is a department responsible for the instructional management of General Education Courses. These courses span across the fields of humanities and social sciences, languages, as well as sciences and mathematics. Aligned with the desired competencies of each academic discipline within the university, the curriculum aims to enhance students' life skills, language proficiency, and other essential capabilities. In response to the widespread impact of the COVID-19 virus, the division has seamlessly transitioned to online teaching methods. This adaptation encompasses adjustments by instructors, students, and support staff to ensure that the educational content is effectively delivered in the online format.

In light of the above, the investigation will delve into the various aspects of online education, including the use of digital tools, communication strategies, and the overall adaptability of students and educators. The findings of this study aim to inform educational institutions, policymakers, and educators on best practices for online learning and contribute to the ongoing discourse on the future of education in the face of unprecedented challenges.

RESEARCH OBJECTIVES

This research study was aimed to

1) To investigate the learning behaviors of students at Suan Sunandha Rajabhat University through online platforms.
2) To examine the factors that are correlated with students' online learning outcomes at Suan Sunandha Rajabhat University.

CONCEPTUAL FRAMEWORK

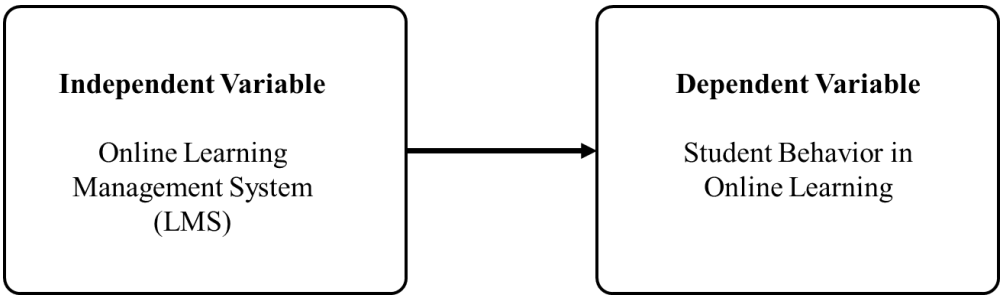

Figure 1. Conceptual Framework of the Study (Malithong.K,2005).

This conceptual framework provides a theoretical foundation for investigating student engagement in online learning. It is based on the premise that student engagement is a complex phenomenon that is influenced by a variety of factors, including individual characteristics, learning environment, and instructional design.

The framework is organized around three key concepts:

1) Student characteristics include factors such as motivation, prior knowledge, and learning style. These characteristics influence how students approach learning and how they interact with the online learning environment.
2) Learning environment includes factors such as the availability of resources, the quality of instruction, and the level of support. These factors create the context in which students learn and can influence their engagement.
3) Instructional design includes factors such as the use of active learning, the provision of feedback, and the use of technology. These factors can be used to create learning experiences that are engaging and effective.

The framework suggests that student engagement is a dynamic process that is influenced by the interaction of these three factors. By understanding these factors, educators can create learning experiences that are more likely to engage students and promote their learning.

METHODOLOGY

1) Population Definition and Sample Group Selection: The research focuses on undergraduate students at Suan Sunandha Rajabhat University, with a total population of 2,952 students. The sample size for this study is determined to be 400 students, calculated using Taro Yamane's formula. Data collection spans December 2022 to June 2023.(Academic Divisions Service,2023)

2) Research Tools: The primary research tool employed is a questionnaire designed by the researcher. The questionnaire comprises three sections, covering general information, online learning behavior, and student opinions. It includes closed-ended questions, evaluated rating scales, and open-ended questions.

3) Data Collection: Primary data is collected through the questionnaire administered to the selected sample group of 400 students at Suan Sunandha Rajabhat University. The questionnaire encompasses a 60-day data collection period.

4) Data Analysis: The analysis involves descriptive statistics using the Statistical Package for Social Science (SPSS). Mean scores and standard deviations will be calculated for each question, and the data will be presented in tabular form. The evaluation criteria are based on the average method, categorizing responses into five levels.

Part 1: General Information of Respondents, including gender, academic year, and Place of Learning.

Part 2: Focuses on the online learning behavior of the students and employs closed-ended questions using a Evaluated Rating Scale based on the Likert scale. This section comprised 10 items rated on a 5-point Likert Scale, with the following scale interpretation:

5: Strongly Agree
4: Agree
3: Neutral
2: Disagree
1: Strongly Agree

Statistical analyses included the calculation of percentages, means, and standard deviations. The assessment criteria for the mean scores were as follows, based on Likert Scale:

Mean Score 4.21 - 5.00: Strongly Agree
Mean Score 3.41 - 4.20: Agree
Mean Score 2.61 - 3.40: Neutral
Mean Score 1.81 - 2.60: Disagree
Mean Score 1.00 - 1.80: Strongly Agree

RESULT

This research investigated into the analysis of factors influencing students' learning through online systems, focusing on a case study of students at Suan Sunandha Rajabhat University. The study examined 400 students, considering personal factors and behaviors. The findings, categorized according to types, are presented in the following table:

Table 1 presents the number and percentage of respondents' general information – gender.

Gender	Number	Percentage
Male	176	44.00
Female	224	56.00
Total	400	100.00

From Table 1, it can be observed that the respondents who participated in the satisfaction survey regarding Online Learning Management System: Patterns and Practices were predominantly female, with a total of 224 individuals (56.00%), while the male respondents numbered 176 individuals (44.00%).

Table 2 displays the number and percentage of general information – academic year.

Academic Year	Number	Percentage
Year 1	184	46.00
Year 2	112	28.00
Year 3	65	16.25
Year 4	39	9.75
Total	400	100.00

From Table 2, it can be observed that the respondents who participated in the satisfaction survey regarding Online Learning Management System: Patterns and Practices were primarily Year 1 students, totaling 184 individuals (46.00%). Year 2 students comprised 112 individuals (28.00%), Year 3 students were 65 individuals (16.25%), and Year 4 students were 39 individuals (9.75%).

Table 3 displays the number and percentage of general information – equipment.

Equipment	Number	Percentage
Smartphones	108	27.00
Laptops	55	13.75
Desktop Computers	35	8.75
Tablet/iPad	202	50.50
Total	400	100.00

From Table 3, it can be observed that the respondents who participated in the satisfaction survey regarding Online Learning Management System: Patterns and Practices were Tablet/iPad, totaling 202 individuals (50.50%). Smartphone, totaling 108 individuals (27.00%). Laptops comprised 55 individuals (13.75%), and Desktop Computers were 35 individuals (8.75%)

Table 4 displays the number and percentage of general information – Place of Learning.

Place of Learning	Number	Percentage
Home	68	17.00
Condominium/Apartment	134	33.75
University	98	24.50
Restaurant/Coffee shop	100	25.00
Total	400	100.00

From Table 4, it can be observed that the respondents who participated in the satisfaction survey regarding Online Learning Management System: Patterns and Practices were Condominium/Apartment, totaling 134 individuals (33.75%). Restaurant/Coffee shop, totaling 100 individuals (25.00%). University comprised 98 individuals (24.50%), and Home were 68 individuals (17.00%)

Table 5 displays the number and percentage of general information – Network.

Network	Number	Percentage
WIFI	258	64.50
Mobile Network	142	35.50
Total	400	100.00

From Table 5, it can be observed that the respondents who participated in the satisfaction survey regarding Online Learning Management System: Patterns and Practices were Wifi, totaling 258 individuals (64.50%). Mobile Network, totaling 142 individuals (35.50%).

Table 6 Mean and Standard Deviation of satisfaction levels towards Online Learning Management System: Patterns and Practices.

Online Learning Management System: Patterns and Practices.	Mean	S.D.	Interpretation
1. Teaching and Learning Behavior	3.85	0.53	Neutral
2. Attitude towards Teaching and Learning	4.19	0.57	Agree
3. Problems Arising from Online Learning	4.26	0.52	Strongly Agree
Total	4.10	0.54	Agree

From Table 6, Research Findings: In summary, student opinions on Online Learning Management System: Patterns and Practices are agreed with an overall satisfaction level of 4.10 and a standard deviation of 0.54.

Table 7 Mean and Standard Deviation of satisfaction levels towards Online Learning Management System: Patterns and Practices.

Teaching and Learning Behavior	Mean	S.D.	Interpretation
1. Consistency in Classroom Attendance	3.32	0.67	Neutral
2. Interaction with the Instructor during Classroom Attendance	3.40	0.59	Neutral
3. Utilization of Additional Online Learning Materials and Media by Instructors	4.22	0.42	Strongly Agree
4. Consistency in Completing Tests, Homework, and Assignments	4.20	0.52	Agree
5. Self-Study from Recommended Books, Textbooks, and Various Media	4.15	0.46	Agree
Overall	3.85	0.53	Agree

From Table 7, Research Findings: In summary, student opinions on Online Learning Management System: Patterns and Practices, Teaching and Learning Behavior are agreed with an overall satisfaction level of 3.85 and a standard deviation of 0.53.

Table 8 Mean and Standard Deviation of satisfaction levels towards Online Learning Management System: Patterns and Practices.

Attitude towards Online Teaching	Mean	S.D.	Interpretation
1. Instructors adhere to scheduled start and end times	4.24	0.67	Strongly Agree
2. Instructors provide teaching methods, explain objectives, content scope, and learning activities	4.28	0.40	Strongly Agree
3. Instructors create a conducive learning atmosphere and encourage student participation	4.18	0.46	Agree
4. Instructors have step-by-step and easy-to-understand teaching processes	4.12	0.52	Agree
5. Instructors organize learning exchange activities among students or between instructors and students, such as discussions or group activities	4.21	0.52	Strongly Agree
Overall	4.26	0.51	Strongly Agree

From Table 8, Research Findings: In summary, student opinions on Online Learning Management System: Patterns and Practices, Attitude towards Online Teaching are strongly agreed with an overall satisfaction level of 4.26 and a standard deviation of 0.51.

Table 9 Mean and Standard Deviation of satisfaction levels towards Online Learning Management System: Patterns and Practices.

Challenges of Online Learning	Mean	S.D.	Interpretation
1. Students experience intermittent attention during online learning sessions	4.27	0.47	Strongly Agree
2. Students struggle to self-regulate and attend online classes on time	4.22	0.50	Strongly Agree
3. Online learning creates a sense of distance from instructors and peers	4.63	0.53	Strongly Agree
4. Instructors assign a significant amount of homework/reports/projects, making it challenging to meet deadlines	4.07	0.62	Agree
5. Increased expenses related to internet connectivity and electricity	4.13	0.46	Agree
Overall	4.26	0.52	Strongly Agree

From Table 9, Research Findings: In summary, student opinions on Online Learning Management System: Patterns and Practices, Challenges of Online Learning are strongly agreed with an overall satisfaction level of 4.26 and a standard deviation of 0.51.

CONCLUSION

In conclusion, the data analysis of undergraduate students at Suan Sunandha Rajabhat University has provided valuable insights into various aspects of their online learning experiences. The demographic information revealed a well-balanced gender distribution, with a slight majority of female participants. The distribution of ages and academic years demonstrated a diverse student body, spanning different age groups and academic levels.

The widespread use of smartphones and tablets as primary electronic devices for online learning highlights the adaptability and accessibility of mobile technology among students. The

preference for home-based learning further underscores the flexibility and convenience offered by online education. Additionally, the significant reliance on Wi-Fi connectivity emphasizes the importance of a robust internet infrastructure in facilitating remote learning. (Putthima.S and Chaimin.C.,2020).

The behavioral analysis offered a nuanced understanding of students' engagement in online learning. The overall positive perception of online learning behavior is encouraging, with students displaying commitment to attendance, completion of assignments, and consistent self-study. The high ratings for teaching and learning behavior affirm the effectiveness of instructors in providing clear guidance and facilitating interactive learning experiences.

However, challenges persist, as indicated by the highest-rated aspect—problems arising from online learning. The sense of distance from instructors and peers, intermittent focus, and difficulties in self-discipline pose significant hurdles. Financial implications, such as increased expenses for internet and electricity, add another layer of complexity. Instructors are also urged to strike a balance in workload assignment to ensure students can meet deadlines without compromising the quality of their work.

These findings underscore the necessity of adopting a holistic approach to enhance the online learning experiences of undergraduate students. Educational institutions should consider implementing strategies to bridge the perceived gap between students and instructors, foster a sense of community in virtual spaces, and provide additional support for students facing financial challenges. Continuous professional development for instructors, focusing on effective online teaching methods and workload management, is crucial for maintaining the quality of education in virtual settings.

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