

Approaches to Teaching and Learning to Enhance Students' Skills in the Digital Age

Natnaphat Surabhidh¹, Wallop Piriawatthana²

^{1,2}Suan Sunandha Rajabhat University, Thailand

Email:natnaphat.su@ssru.ac.th¹, wallop.pi@ssru.ac.th²

Abstract

This research aims to study effective online teaching management for undergraduate students at Suan Sunandha Rajabhat University who are enrolled in general education courses in the second semester of the academic year 2023, totaling 400 students. The research instruments used include a questionnaire, and the statistics applied are percentage, mean, standard deviation, and a study of articles and academic research using content analysis.

The findings indicate that undergraduate students have a high overall opinion regarding online teaching management. There are three components of teaching management: the overall level of online teaching management among undergraduate students is very high ($\bar{x} = 4.36$, S.D. = 0.51). When considering specific aspects, the highest level is found in the category of individuals who promote learning (Facilitator) ($\bar{x} = 4.39$, S.D. = 0.57) who the most important aspect for students is the involvement of facilitated student participation in the teaching process, followed by individuals who promote learning (Students) ($\bar{x} = 4.36$, S.D. = 0.53) where students emphasize the importance of being responsible for their own learning and managing their time effectively, and Media and Technology that enhance learning management ($\bar{x} = 4.28$, S.D. = 0.51) where the most significant aspect for students is having online communication channels that can quickly disseminate information to students.

Keywords: Teaching and Learning, Enhance Students' Skills, Digital Age

1. Introduction

Education system is being adjusted to align with changes in technology and society in the digital age, especially after the COVID-19 pandemic, which has necessitated a shift towards increased use of technology in teaching and learning. Education is no longer limited to traditional classroom learning but includes online learning that can be done anywhere and anytime. The internet and digital technology play a significant role in research and communication, impacting education both positively and negatively. These changes require educational institutions to adapt quickly to meet the demands of the labor market and technological advancements. 21st century education thus focuses on effective learning by developing essential skills such as critical thinking, creativity and innovation, collaboration, communication, information technology use, and lifelong learning skills. These skills are necessary to adapt to a rapidly changing world. Additionally, education in the digital age must emphasize the balance between technology use and maintaining humanity, as education not only seeks knowledge but also aims to develop social values and learning that can be applied in real life. (Jewpanich, C,2019, p. 51)

Education is not just about transmitting knowledge but also promotes joy in learning, which affects the ability to learn and academic achievement. Creating a positive learning atmosphere and fostering positive relationships between learners and institutions can enhance learning effectiveness. Therefore, education is a crucial investment in skill development and creating happiness in learning that can lead to future success. Universities and instructors must adapt to changes in teaching methods, such as using online platforms and digital tools for learning, focusing on personalized learning for each student. Teachers need to prepare in terms of technology, communication, and management to ensure effective teaching and learning in the digital age. (Phuwijit,J 2021)The Office of General Education and Innovative Electronic Learning, Suan Sunandha Rajabhat University develops teaching and learning to be adaptable to various situations and flexible to meet the needs of learners. The use of online systems call “ Flexspace” in teaching management is one way to allow students to learn anytime and anywhere, making teaching and learning more convenient and accessible. Learning in the digital age is therefore flexible and responsive to the needs of learners today.

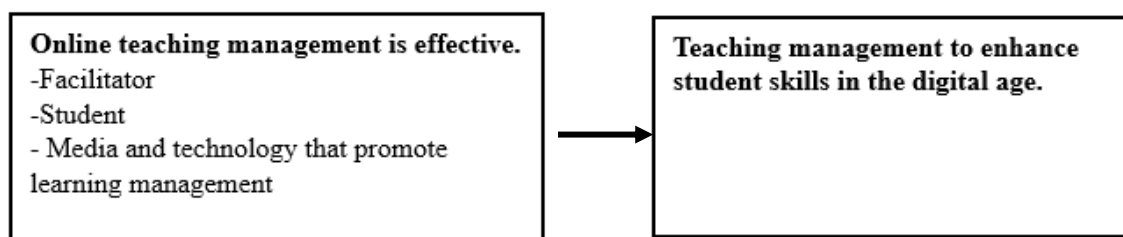
1.1 Research Objective

This research study was aimed to

- 1) To study effective online teaching management.

2. Conceptual Framework

Figure 1. Conceptual Framework of the Study



The conceptual framework illustrated in Figure 1. Depicts Teaching Management to Enhance Student Skills in the Digital Age. In the digital age, effective teaching management is pivotal for fostering essential skills among students. This concept focuses on the integration of innovative strategies that encompass three primary components:

Facilitator: Teachers act as guides, adopting a facilitator role that emphasizes active learning and critical thinking rather than passive knowledge transmission.

Student: The approach centers on students as active participants, fostering autonomy, creativity, and problem-solving skills tailored to the demands of the digital era.

Media and Technology: The incorporation of modern media and digital tools enhances the learning experience by promoting interactive, flexible, and accessible education.

This framework aims to create an engaging and adaptive educational environment that equips students with the skills needed for lifelong learning and success in a technology-driven world.

3. Methodology

This study conducted a systematic collection and analysis of sentiment from comments provided by 400 undergraduate students engaged in a general education course delivered via an on-demand format. The data collection process involved the accumulation of 400 distinct comments, which corresponded to one comment per student participant.

In this research, the researcher conducted a quantitative study, collecting data and opinions from a sample group of undergraduate students enrolled in the second semester of 2023 at Suan Sunandha Rajabhat University. The research tool used was a questionnaire created based on concepts, theories, and research related to online teaching and learning. Data was collected in the form of primary data through the questionnaire and secondary data by studying documents and articles related to the research, local newspapers, or publications concerning online teaching and learning, as well as relevant websites. The collected data was analyzed using descriptive statistics with the SPSS (Statistical Package for Social Science) software, utilizing statistics such as mean and standard deviation.

4. Results

The research on the study of teaching management to enhance students' skills in the digital age reflects the need for a teaching model. Undergraduate students at Suan Sunandha Rajabhat University believe that the teaching management should involve a relationship between instructors, students, and information and communication technology to coordinate learning styles suitable for each subject.

In the digital age, higher education students have significantly adjusted their learning formats. Educational institutions must adapt their teaching management to fit the current students. Online systems are crucial for communication and coordination, as well as for changing the teaching system from the traditional format to an online learning system, which is continuously developed to provide convenience for students. The results of the research thus reflect the need for coordination between instructors, students, and new teaching management methods to suit the learners.

Table 1. Dataset Formatting and Analysis Results

Opinions of undergraduate students on teaching management through online systems.

Total

	Detail	Mean	S.D.	Agreement
1.	Facilitator	4.36	0.53	Excellent
2.	Student	4.39	0.57	Excellent
3.	Media and Technology	4.34	0.44	Excellent
	Total	4.36	0.51	Excellent

* Example from dataset of 400 comments

The overall results of the opinions of undergraduate students regarding online teaching management are at the highest level ($\bar{x} = 4.36$, S.D. = 0.51). When considering each aspect, the highest level is in the area of monitoring ($\bar{x} = 4.39$, S.D. = 0.57), followed by planning ($\bar{x} = 4.36$, S.D. = 0.53), and subsequently, the area of support provision ($\bar{x} = 4.28$, S.D. = 0.51).

Table 2. Dataset Formatting and Analysis Results

Opinions of undergraduate students on teaching management through online systems.

(Facilitator)

Detail	Mean	S.D.	Agreement
1. Design engaging teaching methods	4.36	0.67	Excellent
2. Encourage students to collaborate online.	4.18	0.40	Good
3. Involve students (Feedback).	4.55	0.52	Excellent
Total	4.36	0.51	Excellent

* Example from dataset of 400 comments

From Table 2, it shows that overall, individuals who promote learning (Facilitator) are at the highest level ($\bar{x} = 4.36$, S.D. = 0.53). When considering each item, the highest-rated aspect is that instructors engage students (Feedback) ($\bar{x} = 4.55$, S.D. = 0.52). The next aspect is that instructors design interesting lessons ($\bar{x} = 4.36$, S.D. = 0.67), and instructors encourage students to collaborate online ($\bar{x} = 4.18$, S.D. = 0.40).

Table 3. Dataset Formatting and Analysis Results

Opinions of undergraduate students on teaching management through online systems.

(Student)

Detail	Mean	S.D.	Agreement
1. Responsibility for their own learning and can manage their time appropriately.	4.45	0.52	Excellent
2. Digital literacy and can appropriately use the basic technology necessary for learning..	4.36	0.46	Excellent
3. Collaborate with others by using technology as a medium, respecting the opinions of others, and understanding the context of teaching and learning.	4.44	0.67	Excellent
Total	4.38	0.57	Excellent

* Example from dataset of 400 comments

From Table 3, it shows that overall, the aspect of individuals promoting learning (students) is at a high level ($\bar{x} = 4.38$, S.D. = 0.57). When considering each item, the highest-rated aspect is that students are responsible for their own learning and can manage their time appropriately ($\bar{x} = 4.45$, S.D. = 0.52). The next aspect is that students are digitally literate and can use essential technologies for learning appropriately ($\bar{x} = 4.36$, S.D. = 0.46), and students can collaborate with others using technology as a medium, respect others' opinions, and understand the context of teaching and learning ($\bar{x} = 4.34$, S.D. = 0.67).

Table 4. Dataset Formatting and Analysis Results

Opinions of undergraduate students on teaching management through online systems.
(Media and Technology)

Detail	Mean	S.D.	Agreement
1 . A comprehensive internet signal system that allows instructors and students to use it effectively.	4.54	0.47	Excellent
2. Support for programs or applications that promote learning management, allowing teachers to use them effectively according to the context of the content in each subject.	4.48	0.50	Excellent
3. Online communication channels that can be used to quickly disseminate information to students.	4.63	0.50	Excellent
Total	4.55	0.49	Excellent

* Example from dataset of 400 comments

From Table 4, it shows that overall, the aspect of media and technology that promotes learning management is at the highest level ($\bar{x} = 4.55$, S.D. = 0.49). When considering each item, the issue with the highest score is the availability of online communication channels that can be used to disseminate information to students quickly ($\bar{x} = 4.63$, S.D. = 0.50). The next issue is the comprehensive internet signal system that allows instructors and students to use it effectively ($\bar{x} = 4.36$, S.D. = 0.50). There is also support for programs or applications that help promote learning management, enabling instructors to use them effectively according to the context of the content in each course ($\bar{x} = 4.27$, S.D. = 0.47).

5. Conclusion

The era of the coronavirus pandemic, teaching management has entered the era of online teaching management to integrate and allow learners to learn independently. The study found that undergraduate students, overall, have opinions regarding the factors that make online teaching management effective, which include: 1) the personal aspect that promotes learning (instructors) ($\bar{x} = 4.39$, S.D. = 0.57) as guides, leaders, and supporters for learners to foster a desire for learning and collaborative learning; 2) the individuals promoting learning (students) ($\bar{x} = 4.36$, S.D. = 0.53) must have time management skills; and 3) the media and technology that promote learning management ($\bar{x} = 4.28$, S.D. = 0.51) must be fully integrated with instructors, learners, and technology to respond quickly to needs. This aligns with the research by Siriporn Inthasorn (2020), which studied "COVID-19: Online Teaching Case Study: Web Programming Course," explaining that the situation significantly impacted the education system, requiring both learners and instructors to adapt and choose online learning programs that have various advantages and limitations. The readiness of students' computer equipment, as well as the problems that arise during learning, led both learners and instructors to learn to use major online learning applications such as Line, Zoom, YouTube, and Google Classroom. The result consistent the findings of the research titled The Development of a Web-based Lesson to Enhance Digital Technology Competency for Pre-Service Teachers at Suan Sunandha Rajabhat University revealed that the effectiveness of the web-based lessons met the specified criteria. The development of digital technology competency, assessed through pre- and post-activity scores, showed a high level of

competency prior to the activities and a very high level after the activities. Additionally, the evaluation of pre-service teachers' satisfaction with the web-based learning activities to enhance digital technology competency indicated that overall satisfaction was at the highest level. (Chuchuoy,K ,2024)

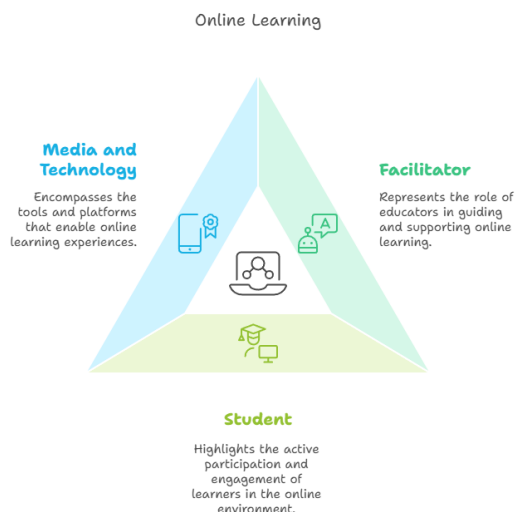


Figure 1. Teaching and Learning for Digital Age

6. Acknowledgments

The authors would like to thank Suan Sunandha Rajabhat University, Bangkok, Thailand (<http://www.ssru.ac.th/>) to provide funding support to attend the dissemination of research on this and thank family, friends, colleagues, students in the field of Digital Innovation Management and Content, Digital Technology for Education and The Office of General Education and Innovative e-Learning for cooperation and provide the dataset in research, all of you.

References

- Chuchuoy,K, Srma, S & Noichun, N.(2024). The Development of a Web-based Lesson to Enhance Digital Technology Competency for Pre-Service Teachers at Suan Sunandha Rajabhat University.SSRU Academic Journal of Education. 8 (2). 44-54.
- Google. (2022). GPT for Sheets and Docs (Version 1.0) . Retrieved from https://workspace.google.com/marketplace/app/gpt_for_sheets_and_docs/677318054654
- Jewpanich, C. , & Piriya Surawong, P. ,Charoen Phuwijit, C. , (2019) . Effective online learning management in the digital age. In Thai education in the era of online society. Journal of Research and Development, Suan Sunandha Rajabhat University, 7(3).
- Koetruang, A. (2017). Promoting 21st century learning to support Thai society in the digital age. Lampang Rajabhat University Journal, 6(1), 173–184.
- Vayo, W., Charoenukool, A., Kanakayan, C., & Janya. (2020). Online teaching and learning during the COVID-19 pandemic: Concepts and applications for teaching management. Journal of the 9th Health Center: Journal of Health Promotion and Environmental Health, 14(34), 21-40.

Inthasorn, S. (2020). COVID-19: Online teaching case study, web programming course. *Journal of Management Science*, 22(2), 203–215. Retrieved from file:///C:/Users/Acer/Downloads/244722-Article%20Text-876989-1-10-20201229.pdf

Teacher Nan. (n.d.). 8 ways to teach online effectively and achieve good results. <https://www.xn--12cg5gc1e7b.com/24199/>