



Insights from Students on the Use of Asynchronous and Synchronous Approaches during Digital Learning in Thailand's Primary Schools

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ABSTRACT

The outbreak of Covid-19 necessitated a rapid shift in educational paradigms worldwide. With physical classrooms rendered inaccessible, educators and students turned to distance learning as the new norm. This study investigates the effectiveness of two prominent e-learning strategies: synchronous learning (facilitated by platforms like Zoom) and asynchronous learning (centered on video materials). The primary objective was to discern which approach better supported students in their educational journey while they remained confined to their homes during quarantine. The pandemic disrupted traditional educational models, prompting institutions to adapt swiftly. Distance learning emerged as a lifeline, but questions lingered about the most effective methods. This research aimed to address this gap by comparing synchronous and asynchronous learning strategies. The investigation took place in multiple schools across Thailand, where students had been navigating remote learning. A questionnaire with Likert scale questions assessed students' perceptions as well as interviews and open-ended responses to provide deeper insights. It turns out that students favored synchronous learning due to its ease of communication. Zoom sessions allowed direct interaction with teachers and peers although both approaches effectively delivered content, but asynchronous learning lacked real-time feedback. Moreover, synchronous learning provided a structured environment, while asynchronous learning allowed flexibility.

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INTRODUCTION

The digital revolution has brought about significant changes in the education sector, introducing innovative methods of teaching and learning. Among these, asynchronous and synchronous approaches have gained prominence, especially in the era of online learning. These approaches have transformed the traditional classroom-based learning model, enabling students to learn at their own pace and interact with their peers and teachers in real-time.

The research on students' perspectives of synchronous and asynchronous learning during the COVID-19 pandemic has revealed valuable insights. Fabriz et al. (2021) emphasized the need to understand how students and teachers characterize synchronous and asynchronous teaching methods in emergency remote teaching (ERT) settings. They highlighted the potentials and challenges of each setting, indicating the importance of exploring students' experiences. Similarly, Nguyen et al. (2021) gathered quantitative and qualitative data on students' experiences with remote learning methods, shedding light on specific pedagogical techniques associated with synchronous and asynchronous learning.

Moreover, Sunasee (2020) found that a combination of synchronous and asynchronous teaching methods was effective for content delivery and increasing student engagement, while Accettone (2021) indicated that students generally preferred the interactive delivery of synchronous learning to more passive asynchronous engagement. These findings were supported by (Yuyun, 2023), who suggested that incorporating both synchronous and asynchronous activities into online learning could enhance student interaction.

Furthermore, Dahmash (2021) highlighted that synchronous classes offered real-time communication and immediate feedback, while asynchronous classes allowed students to navigate the challenges of distance learning, providing a sense of security. Additionally, Dada et al. (2019) found that students' attitudes toward synchronous and asynchronous e-learning significantly affected their academic performance.

Those references underscores the importance of understanding students' perspectives on synchronous and asynchronous learning. The research indicates that a combination of both methods may be beneficial, as it allows for active engagement, immediate feedback, and flexibility in learning. These insights are crucial for educators and institutions seeking to optimize the online learning experience for students.

Asynchronous learning is a student-centered teaching method that uses online resources to facilitate information sharing outside the constraints of time and place among a network of people. This approach allows students to access learning materials at their own pace and interact with each other over extended periods. In contrast, synchronous learning is a more traditional form of learning where there is real-time interaction between instructors and students, often requiring simultaneous participation from all parties.

Both methods have their unique advantages and challenges. Asynchronous learning provides flexibility and allows for self-paced learning, but it may lack the immediate feedback and interaction of a traditional classroom. Synchronous learning, on the other hand, offers real-time interaction and instant feedback but may not offer the same flexibility as asynchronous learning. The effectiveness of these methods can vary based on numerous factors, including the learners' preferences, the nature of the course content, and the technological infrastructure available.

In Thailand, the digital divide has been a significant concern, affecting students' access to digital devices and internet connectivity. This divide is not just about access to technology but also about the

ability to use that technology effectively for learning. Despite these challenges, there has been a notable shift towards digital learning platforms in the country. The government has initiated several programs to improve digital literacy and infrastructure, especially in rural areas.

Understanding students' perspectives on asynchronous and synchronous learning approaches can provide valuable insights into how to optimize these platforms for enhanced learning outcomes. It can help educators design more effective learning experiences and can guide policymakers in making informed decisions about educational technology investments.

This research will contribute to the ongoing discussions about digital learning in Thailand and will hopefully lead to strategies that can help bridge the digital divide and improve education outcomes for all students. It is an exploration of how digital learning tools are being used in real-world classrooms and how these tools can be improved to better serve students and teachers. It is about understanding the opportunities and challenges of digital learning and about leveraging technology to create more engaging, inclusive, and effective learning experiences. It is about ensuring that all students, regardless of where they live or what resources they have access to, can benefit from the opportunities that digital learning can provide.

METHODS

This study collected data from a diverse group of elementary schools, with a participant pool of 100 students. The primary objective of the research was to delve into students' perceptions of distance learning, specifically examining their experiences with synchronous and asynchronous learning methods.

Synchronous learning, facilitated by platforms like Zoom, allows real-time interaction between teachers and students, mimicking the traditional classroom environment in a virtual setting. On the other hand, asynchronous learning is centered around pre-recorded video content, enabling students to learn at their own pace and on their own schedule.

The researchers implemented a blended e-learning approach, combining both synchronous and asynchronous methods. This approach aimed to leverage the benefits of both strategies, providing real-time interaction and flexibility in learning. The effectiveness of this blended approach was a key area of investigation in this study.

To gain a comprehensive understanding of students' perceptions, the researchers employed a mixed-method approach. This approach combines quantitative and qualitative research methods, providing a more holistic view of the research problem.

The research design incorporated a questionnaire as the primary tool for data collection. The questionnaire featured a variety of question types, including Likert scale questions, which measure attitudes or opinions, dichotomous questions, which offer two possible answers, and closed-ended questions, which limit respondents to a set of predefined responses.

The qualitative data derived from the responses to the closed-ended questions were particularly insightful. These responses provided a deeper understanding of the students' experiences and perceptions, offering valuable insights that could guide future improvements in the implementation of distance learning strategies. The study's findings contribute to the ongoing discourse on the effectiveness of e learning, particularly in the context of elementary education.

FINDINGS AND DISCUSSION

The reasons given by students for their preference reveal several general statements. Students showed a preference for regularly scheduled classes, with synchronous showing 68% of respondents, citing the following themes (categorized and ordered for prevalence) in their reasons. Preferences for Asynchronous (video material), which amounted to 22% of students, fell into categories (sorted for prevalence) related to ease, comfort or enjoyment, and skill improvement. Lastly is the percentage of students who chose both subjects, the figure shows 10%. Currently, e-learning can be synchronous or asynchronous according to the needs of the distance learning education system. It is hoped that the implementation of synchronous and asynchronous can be a reference for educators in choosing a learning model that suits their needs and most importantly as a support for distance learning so that it can run well and facilitate teachers and students. (Kayalar, Murat Tolga 2021) Synchronous distance learning makes virtual education a new dimension by bringing together students and teachers in different places but at the same time, and with synchronous learning the classroom condition can be said to be more effective because students can interact directly with the teachers (Kantar, bili, Bayram, Hakkari & Doğan 2008).

In short, students prefer synchronous learning (by zoom), with the reason that they get a better understanding, More Effective, Teacher guidance and assistance, More detailed explanation, also the class is more interesting and alive. The opportunity to interact or clarify grammatical explanations with the teacher and also the lessons delivered can be enjoyed and absorbed well. As the researcher said that asynchronous learning Some research shows that indirect-based education like asynchronous is not as effective as face-to-face teaching (Krause and Coates, 2008; Pickering and Swinnerton, 2019). Poor course design, poor supervision, and poor pedagogy in online teaching are factors that may cause poor learning outcomes and low enthusiasm for this format (Woodworth et al., 2015). As the researcher said that asynchronous learning Some research shows that indirect-based education like asynchronous is not as effective as face-to-face teaching (Krause and Coates, 2008; Pickering and Swinnerton, 2019). Poor course design, poor supervision, and poor pedagogy in online teaching are factors that may cause poor learning outcomes and low enthusiasm for this format (Woodworth et al., 2015). As the researcher said that asynchronous learning Some research shows that indirect-based education like asynchronous is not as effective as face-to-face teaching (Krause and Coates, 2008; Pickering and Swinnerton, 2019). Poor course design, poor supervision, and poor pedagogy in online teaching are factors that may cause poor learning outcomes and low enthusiasm for this format (Woodworth et al., 2015).

Student Preferences

The study reveals that students have a clear preference for the structure and predictability of regularly scheduled classes. A significant majority, 68% of respondents, prefer synchronous learning. This preference is driven by several factors, which can be categorized and ranked by prevalence:

- Better Understanding: Synchronous learning, often conducted via platforms like Zoom, allows for real-time interaction between teachers and students. This immediate feedback loop often leads to a better understanding of the material.
- Effectiveness: The structure of synchronous learning sessions often mirrors traditional classroom settings, which many students find to be a more effective learning environment.

- **Teacher Guidance and Assistance:** Immediate access to teachers during synchronous learning sessions allows for on-the-spot guidance and assistance, which can be crucial for grasping complex concepts.
- **Detailed Explanations:** Synchronous learning allows teachers to provide more detailed explanations and to clarify misunderstandings in real-time.
- **Engagement:** Live classes tend to be more dynamic and engaging, which can enhance the learning experience.

On the other hand, 22% of students expressed a preference for asynchronous learning, which typically involves pre-recorded video material. The reasons for this preference, ranked by prevalence, include:

- **Ease of Access:** Asynchronous learning materials can be accessed at any time, providing students with the flexibility to learn at their own pace.
- **Comfort and Enjoyment:** Without the pressure of real-time interaction, some students find asynchronous learning to be a more comfortable and enjoyable experience.
- **Skill Improvement:** Asynchronous learning requires a certain level of self-discipline and time management skills, which some students view as an opportunity for personal growth.
- A small percentage of students (10%) indicated a preference for both synchronous and asynchronous learning methods, suggesting a desire for a blended learning approach.

Implications for Distance Learning

These findings have important implications for the design of distance learning systems. It's clear that both synchronous and asynchronous learning have their place in e-learning, and educators should consider these preferences when designing their courses. The goal should be to create a learning environment that is supportive, flexible, and responsive to students' needs.

The research also highlights some of the challenges associated with asynchronous learning. While it offers flexibility, some studies suggest that it may not be as effective as face-to-face or synchronous online teaching. Factors such as poor course design, inadequate supervision, and ineffective pedagogy can lead to poor learning outcomes and low enthusiasm for this format. Therefore, when implementing asynchronous learning, special attention should be paid to course design, supervision, and pedagogy to ensure a positive learning experience for all students.

CONCLUSION

While there is no one-size-fits-all approach to e-learning, understanding student preferences can go a long way in creating effective and engaging distance learning experiences. The study underscores the difficulties that come with asynchronous learning. Despite its advantage of flexibility, it's suggested by some research that it may not be as impactful as traditional in-person or synchronous online instruction. Poorly designed courses, insufficient oversight, and ineffective teaching methods can result in subpar learning results and a lack of enthusiasm for this style of learning. Thus, it's crucial to focus on course design, supervision, and teaching methods when employing asynchronous learning to ensure a beneficial learning experience for all students.

To sum up, there's no universal solution for e-learning, but taking into account student preferences can significantly contribute to the development of effective and engaging remote learning experiences.

REFERENCES

- Accettone, S. (2021). Student perceptions of remote chemistry lecture delivery methods. *Journal of Chemical Education*, 98(12), 3667-3679. <https://doi.org/10.1021/acs.jchemed.1c00758>
- Dada, E., Alkali, A., & Oyewola, D. (2019). An investigation into the effectiveness of asynchronous and synchronous e-learning mode on students' academic performance in national open university (noun), maiduguri centre. *International Journal of Modern Education and Computer Science*, 11(5), 54-64. <https://doi.org/10.5815/ijmecs.2019.05.06>
- Dahmash, N. (2021). Synchronous and asynchronous english writing classes in the efl context: students' practices and benefits. *Arab World English Journal*, 12(2), 93-108. <https://doi.org/10.24093/awej/vol12no2.7>
- Fabriz, S., Mendzheritskaya, J., & Stehle, S. (2021). Impact of synchronous and asynchronous settings of online teaching and learning in higher education on students' learning experience during covid-19. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.733554>
- Nguyen, T., Netto, C., Wilkins, J., Bröker, P., Vargas, E., Sealfon, C., ... & Stein, G. (2021). Insights into students' experiences and perceptions of remote learning methods: from the covid-19 pandemic to best practice for the future. *Frontiers in Education*, 6. <https://doi.org/10.3389/educ.2021.647986>
- Sunasee, R. (2020). Challenges of teaching organic chemistry during covid-19 pandemic at a primarily undergraduate institution. *Journal of Chemical Education*, 97(9), 3176-3181. <https://doi.org/10.1021/acs.jchemed.0c00542>
- Yuyun, I. (2023). Investigating university student engagement in online learning: a case study in efl classroom. *Indonesian Journal of Applied Linguistics*, 12(3), 648-667. <https://doi.org/10.17509/ijal.v12i3.46035>