Online English Grammar Instruction at a Thai University during the COVID-19 Pandemic: An Exploratory Study

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ABSTRACT

The COVID-19 pandemic, which began in early 2020, had a significant impact on education worldwide, including the adoption and acceleration of online learning in the English language curriculum. This mixed-methods study aims to explore the opportunities and challenges encountered by a group of Thai university students (n = 33) while learning English grammar online. The participants were given pre- and post-tests involving eight English tenses in addition to quantifiers, all conducted through three phases. These grammar points were based on the set textbooks they were using in class. Findings suggest that, as far as quantitative analysis is concerned, the participants' grammar knowledge was increased satisfactorily, albeit through online instruction. Further, students' behavior while the classes were in session varied considerably. This might have been a result of socio-

economic status affecting their access to technological resources deemed relevant in online education.

Keywords: English as a foreign language, grammar teaching, online learning, Thai EFL undergraduate students, COVID-19 pandemic

Introduction

The adoption of online learning in the English language curriculum began to gain momentum in the late 1990s and early 2000s with the proliferation of the internet and advancements in technology. However, it was not until the 2010s that online learning became more mainstream in education, including English language teaching. This period saw the emergence of various online platforms, learning management systems, and digital resources specifically designed for language learning. As technology continued to evolve and improve, online learning became increasingly integrated into English language curricula at various educational levels, offering more flexibility and accessibility to learners worldwide. Although online learning seems to be an alternative way to solve the problem of distance learning, there are a number of research studies examining its drawbacks. (Nartiningrum & Nugroho, 2020; Sioson, 2021; Sukman & Mhunkongdee, 2021)

Before the COVID-19 pandemic in early 2020, English language teachers in Thailand chose to use traditional face-to-face learning or a blended learning approach rather than 100% online lessons. The spread of COVID-19 became a global health concern, prompting widespread precautions. Close contact was discouraged, leading to a reduction in face-to-face interactions. The World Health Organization (WHO) emphasized alternative methods that minimized contact, and most Thai universities adopted a blended learning approach to maintain their safety protocols, including the university in this study, where a group of first-year students opted to study their fundamental English course online for the first half of the term, and learn offline after the midterm examination. The course syllabus incorporated English grammar for communicative functions, and four units of grammar points were selected by a committee of faculty members of the university. Prior to the pandemic, English grammar was regarded as challenging for Thai learners due to some major differences in characteristic aspects between Thai and English grammar, causing difficulty in remembering English grammar rules and resulting in using ungrammatical English sentences. Another challenging barrier when learning grammar online is its limitation on pair and group work practice and spontaneous interactions among classmates

(Arakkitsakul, 2019; Kachru, 1992; Saengboon, 2017). However, the pandemic has broadly disrupted the traditional forms of language teaching curriculum and education, prompting language teachers to explore innovative approaches to teaching and learning in a digital environment. Therefore, it is crucial to conduct an online-classroom research study to probe how this group of students learns and develops their English grammar online, and to examine factors that either facilitate or hinder students in acquiring and using English grammar correctly.

This study aims to
1. examine the differences between pre- and post-test scores to assess online grammar learning progress, and
2. observe the participants' behavior during online learning sessions.

Literature review

English grammar is vital for effective communication in learning English as a foreign language. Non-native speakers often struggle with various aspects, like tenses and inflections, necessitating innovative teaching methods. In Thailand, where English falls under Kachru's "Expanding Circle," English usage is mainly limited to academic or professional settings (Kachru, 1992). With the pandemic prompting a rapid transition to online learning, educators and students had to adapt to this new mode of instruction. Identifying and addressing challenges during online sessions is essential to improving the effectiveness of this alternative learning approach.

Grammar learning

There are many approaches to grammar teaching. Among them, the two most well-known approaches to grammar teaching are the deductive and inductive approach. Hammerly (1975) defined the differences between them as follows: The deductive approach to teaching relies on first learning rules and then applying them in written exercises, while the inductive approach involves students gaining an intuitive understanding of grammatical structures without conscious analysis, similar to how a child learns through exposure to language over time.

Many comparative studies have been done contrasting the deductive with the inductive grammar teaching approach. Some researchers were in favor of the inductive approach to grammar teaching, such as Abdukarimova and Zubaydova (2021), who performed a study on 6th and 11th grade students in Uzbekistan. Some studies yielded results which showed that there was no significant difference between the two approaches, such as a study by Mahjoob (2015) on 14- to 17-year-old students in Iran.

Though many researchers tried to compare the effectiveness of the two teaching methods, findings from several studies confirmed that for EFL learners, the deductive method of grammar learning yielded better results (Galotti, 1997; Robinson, 1996; Seliger, 1975). Sik (2015) conducted research in Turkey with 190 adult learners, revealing that the deductive approach led to better academic success and higher proficiency levels. Students believed it helped them internalize the English language framework better. Teachers noted the inductive approach was less effective for grammar teaching. Another study in Iran with pre-intermediate EFL students showed a significant difference in their ability to use present simple and present continuous tenses between groups taught grammar deductively and those taught inductively. This suggests a link between deductive grammar learning and improved oral communication accuracy (Negahdaripour & Amirghassemi, 2016).

Descriptive and prescriptive grammar are another two contrasting grammar approaches. According to Bakka (2018), descriptive grammar observes and documents language, including its syntactic structures and rules as they naturally occur in real-life contexts. This approach acknowledges both standard and nonstandard varieties. In contrast, prescriptive grammar dictates how language and its grammar should be correctly used. When both approaches were applied in the classroom, teachers and students in a Thai secondary school setting advocated for descriptive grammar (Sasomsub & Tangkiengsirisin, 2021). Another study in Nigeria, however, claimed that the role of grammar in English language teaching is a topic of debate and whether a certain method of grammar teaching yielded the most effective result required further research (Ogwudile, 2022).

Online learning

During the global pandemic, online learning was the teaching method made available to educators and students in accordance with social distancing. Khan (1997) provided an early definition of online learning, describing it as a mode of instructional delivery where both teachers and students utilize the internet as the primary medium for exchanging information. In a more recent definition, Yang online learning is defined as a method that allows students to learn on their own terms through evolving information and communication technologies, emphasizing student involvement in the learning process and acknowledging the importance of their individual terms and conditions (Yang & Kang, 2020).

Online learning, as a relatively new learning method, faces many challenges. The two topmost challenges are the dependency on an internet connection and the lack of direct interaction between learners and instructors.

The research underscores the fact that online education struggles to yield favorable outcomes in underprivileged nations, such as Pakistan, where a significant portion of students face barriers in accessing the internet due to technical and financial constraints. Moreover, students in higher education emphasized concerns such as the absence of direct interaction with instructors, delays in receiving feedback, and the loss of traditional classroom social dynamics (Adnan & Anwar, 2020). In Indonesia, according to Nartiningrum and Nugroho (2020), the primary difficulties students faced in participating in online courses were unreliable internet connections and reduced direct interactions. In another study in Indonesia, it was found that students began to lose interest in online learning after the initial 2 weeks of studying from home, and there was significant anxiety among participants from low-income families as they had to purchase internet data to participate in online learning (Irawan et al., 2020). The recommendations from this research emphasize the necessity for concerted efforts to support the psychological well-being of students, involving counselors and psychologists.

How students behave online greatly influences how effectively they learn. A study of teenage EFL students in China supports that both cognitive and emotional engagement play a crucial role in influencing learners' intentions to continue with e-learning, particularly in online English courses (Zhou et al., 2022). Various levels of engagement in online learners have direct effects on learning outcomes, with the behavioral patterns ranging from across different learning situations to applicable to only certain learning contexts (Labrović et al., 2023). Therefore, student behavior during online learning is a significant factor to determine the effectiveness of online learning results.

Online grammar learning

The pandemic restrictions forced online learning to be the necessary learning method, and both educators and students had to adjust accordingly. Grammar learning online has been covered by many researchers as grammar remains essential to language students and must be taught as part of many curriculums. Various researchers have conducted studies on online grammar learning with diverse results. Some studies compared online and traditional grammar learning, with results in favor of online learning as opposed to traditional learning as they found that online English grammar learning led to better learning outcomes and superior cognitive results compared to traditional face-to-face classes (Anggrawan et al., 2019; Khodabandeh & Tharirian, 2020).

Other research studies have focused on challenges that need to be overcome to enhance online grammar learning. A study conducted in Saudi

Arabia concluded that virtual lessons may be suitable in specific circumstances, but they may not be sustainable for extended periods, particularly for beginners who need ample time and training to develop time management and organizational skills; suggestions to improve the online grammar classroom included ensuring that both teachers and students were technologically competent and that teachers needed to be aware of student limitations in regards to assignments and classroom activities (Halim et al., 2021). Apse and Farneste (2021) conducted a study in Latvia which suggested that for online grammar to be more successful, issues concerning lack of adequate feedback, the inability to directly ask questions and promptly receive answers, and challenges with managing time and self-directed study skills had to be resolved. Kapranov's (2022) study revealed that the participants reported that their challenges included the absence of in-class interaction and the inability to stay focused during the course.

Research methodology

This research aims to test the effectiveness of an online method in teaching English grammar to a group of volunteer Thai undergraduates as well as observe the participants' behavior during online learning sessions. Over the course of one semester, a group of first-year students enrolled in a fundamental English course participated in 3-hour English lessons weekly. The research was conducted during the first semester of the 2020 academic year. In adherence to university guidelines favoring online classes, instruction was conducted through Google Classroom. The researcher, who also served as a course instructor on the English for communication course, was allocated groups of students from the same soft science discipline. This research adopted a mixed-method study. The group of students was not randomly selected but rather chosen through convenience sampling. The researcher had no control over the assignment of students to their respective groups for the semester. The teaching material was a commercial textbook, Personal Best B1+ Intermediate Student's Book, published by Richmond in 2017 (Burton, 2017). To probe the students' progress, a pre-test and post-test covering all grammar points learned (over four units) were used in the first class and the last week before the midterm examination. Another quantitative tool to examine the students' learning achievement was each unit's pre- and post-test. The quantitative data were also triangulated by using the teacher's observations on how the students behaved during the online learning sessions. The observations were carried out by the researcher.

Grammar points

There were four units covering the following four grammar points:
Unit 1: simple present and present continuous
Unit 2: narrative tenses: simple past, past perfect, past continuous
Unit 3: future forms: present continuous, be going to, will
Unit 4: quantifiers

The four grammar points were predetermined by a committee of faculty members of the university.

Phase I

The participants in this study were first-year university students enrolled in an English for communication course. Participants had English proficiency levels of B1 or lower according to the CEFR scale. The group consisted of 19 female and 14 male students. In this phase, comprehensive tests with 60 multiple-choice and short-answer items were administered to all students at the beginning of the semester. Cronbach's alpha was also employed to find the coefficient of reliability of the test, and the result was 0.92. In the research design of this phase, a quantitative approach was used, where the students' pre-test scores were collected to be used later to see growth. Students were asked to complete comprehensive grammar tests consisting of all the material to be covered during the semester on the first day of class. The test results, namely, the pre-test scores, were collected as quantitative data.

Phase II

The course book for this group of participants was selected by the committee of faculty members of the tertiary institute to which the students belonged. The course book selected was "Personal Best B1+ Intermediate Student's Book." Pre-determined units for the semester covered specific grammar points: 1) simple present and present continuous, 2) narrative tenses (simple past, past perfect, past continuous), 3) future forms (present continuous, be going to, will), and 4) quantifiers, ensuring consistency across all three groups, who were taught by following identical lesson plans. The pre-test and post-test of each unit, consisting of 20 multiple-choice and short-answer items, were administered in this phase of the research.

During lessons, a teacher's observation journal was also used to collect information on students' behaviors. The observation journal consisted of notes on behaviors exhibited by students recorded in chronological order, including but not limited to all verbal exchanges; responses, or lack thereof,

to questions or concerns raised in class; and any incidental requests for communication via online channels.

This phase utilized a mixed-methods research approach. Mixed-methods research combines quantitative and qualitative methodologies to comprehensively collect and analyze data, aiming to address research questions in a more comprehensive manner and provide insights into both quantitative and qualitative aspects within a single study (Ivankova & Plano Clark, 2018).

For each of the four grammar units of the semester, the students were asked to complete the unit pre-test before each lesson started. After the 20-item multiple choice pre-tests were collected, the unit grammar lesson began. Gerngross, Puchta and Thornbury's (2006) grammar teaching steps of 'discovery', 'consolidation', and 'use' were employed. The 'discovery' step involved providing students with the grammatical content of the unit for self-study until they grasped the grammatical rules. For the 'consolidation' step, students reviewed their understanding of the unit's grammatical content through activities that demonstrated how the grammar points were applied. The 'use' step required students to employ the grammatical content in their own contexts by generating sentences.

During each lesson, the teacher recorded a journal which detailed their observations of students' behavior throughout the lesson. In this research, naturalistic observation was employed, wherein students were observed in their natural settings without any intervention. The observation was covert, meaning participants were unaware of being specifically observed, and the researcher actively participated in teaching activities alongside the participants during the class periods (George, 2023). After each grammar lesson, students were asked to complete the post-test so that their progress after learning could be examined.

Phase III

For this phase, the same comprehensive tests with 60 multiple-choice and short-answer items were administered to all students during the last week before the midterm. Students were asked to complete the comprehensive grammar tests. The test results were collected as quantitative data to be compared with the pre-test results.

The quantitative data for this research included test scores from both comprehensive tests and unit tests administered throughout the semester. The test scores were evaluated using paired-sample t-tests to compare the differences between pre-tests and post-tests. This analysis was performed to verify whether the grammar lessons held after the pre-test contributed to any gain in the grammar understanding of the students.

Qualitative data collection in this study involved the teacher's observation journal. The aim of using this method was to understand students' experiences with grammar learning and how social contexts in their classrooms influenced their perceptions.

This mixed-methods study combines quantitative and qualitative approaches to provide a comprehensive understanding of the research questions. The quantitative aspect yields numerical data through statistical analysis, offering concrete comparisons. Meanwhile, the qualitative aspect provides textual data, allowing for exploration of class context. By employing 'convergent parallel design', this mixed-methods approach enabled the collection of both objective and subjective data, facilitating a more thorough comparative analysis.

Findings

The findings from this research can be categorized into the quantitative and qualitative parts.

For the quantitative part, the differences in the pre- and post-teaching grammar test scores were used to determine whether the online grammar lessons had led to an improvement in students' grammar use or not. The qualitative part of the research dealt with student behaviors, as recorded in the teacher's observation journal, to help strengthen the findings of the study.

To demonstrate, the findings are presented as follows.

Table 1

Pre- and Post-test Comprehensive Scores

	Mean	N.	Std. deviation	Std. error of the mean
Pre-test	29.35	31	8.935	1.605
Post-test	40.32	31	4.158	0.747

The results show that this group of students learning grammar online had average pre-test scores of 29.35 points, increasing to 40.32 points in the post-test. This shows that the online grammar lesson administered to this group of students led to an improvement in understanding and application of the learned grammar points, as the scores increased from nearly 50% to approximately 67%.

Table 2

Statistical T-test Results

	Mean	Std. deviation	Std. error of the mean	t.	df	Sig. (two-tailed)
Comprehensive pre-test and post-test	-10.968	9.094	1.633	-6.715	30	.000

Using the paired-samples t-test, it was found that there was a significant difference in pre- and post-test scores at .000. This difference means that the participants were able to increase their comprehensive understanding of grammar learning points after their online lessons.

The progress of each unit test

Between the beginning of the semester and the midterm, four grammar units were covered in the online classroom. For each unit, a pre-test was given to the students before lessons, followed by a post-test once the grammar unit was over. The results of the tests are as follows.
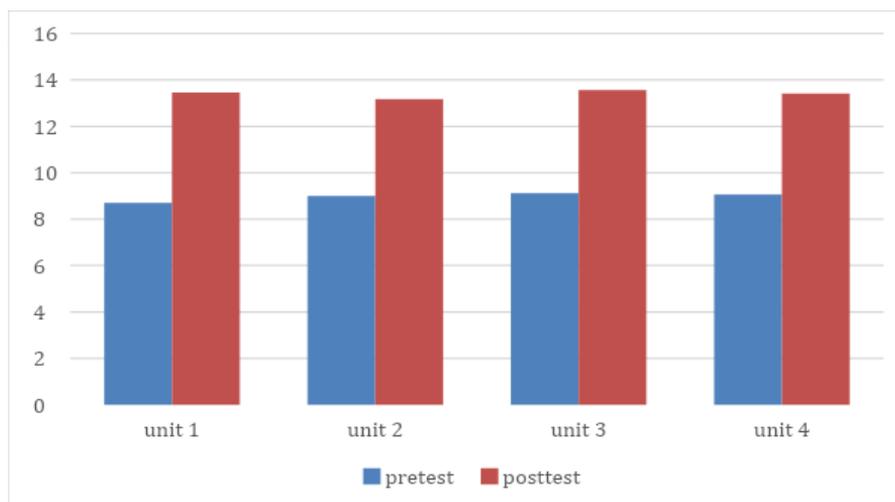
Figure 1

Figure 1 shows that the scores for the post-tests were higher than those of the pre-tests for all grammar units. This means that each individual grammar lesson contributed to an improvement in the students' grammar knowledge.

The mean scores and statistical results of the t-test for each of the four grammar units covered in this research are as follows.

Table 3

Pre- and Post-test Mean Scores of Unit 1: Simple Present and Present Continuous

	Mean	N.	Std. deviation	Std. error of the mean
Pre-test	8.64	33	1.934	0.337
Post-test	13.12	33	1.293	0.225

Table 4

Statistical T-test Results of Unit 1: Simple Present and Present Continuous

	Mean	Std. deviation	Std. error of the mean	t.	df	Sig. (two-tailed)	P
Simple present and present continuous	-10.968	9.094	1.633	-6.715	30	.000	<.001

Table 5

Pre- and Post-test Mean Scores of Unit 2: Narrative Tenses: Simple Past, Past Perfect, Past Continuous

	Mean	N.	Std. deviation	Std. error of the mean
Pre-test	9.00	33	1.871	0.326
Post-test	13.18	33	1.158	0.202

Table 6

Statistical T-test Results of Unit 2: Narrative Tenses: Simple Past, Past Perfect, Past Continuous

	Mean	Std. deviation	Std. error of the mean	t.	df	Sig. (two-tailed)	P
Narrative tenses	-4.182	1.976	0.344	-12.16	32	.000	<.001

Table 7

Pre- and Post-test Mean Scores of Unit 3: Future Forms: Present Continuous, Be Going To, Will

	Mean	N.	Std. deviation	Std. error of the mean
Pre-test	9.12	33	1.654	0.288
Post-test	13.58	33	1.032	0.180

Table 8

Statistical T-test Results of Unit 3: Future Forms: Present Continuous, Be Going To, Will

	Mean	Std. deviation	Std. error of the mean	t.	df	Sig. (two-tailed)	P
Future forms	-4.455	2.001	0.348	-12.79	32	.000	<.001

Table 9

Pre- and Post-test Mean Scores of Unit 4: Quantifiers

	Mean	N.	Std. deviation	Std. error of the mean
Pre-test	9.06	33	1.731	0.301
Post-test	13.42	33	1.146	0.200

Table 10

Statistical T-test Results of Unit 4: Quantifiers

	Mean	Std. deviation	Std. error of the mean	t.	df	Sig. (two-tailed)	P
Quantifiers	-4.364	1.981	0.345	-12.65	32	.000	<.001

Table 3, 5, 7 and 9 each shows the mean scores of pre- and post-tests for each of the four grammar units. The average scores before learning all increased after learning. For unit 1: simple present and present continuous, the mean class score for the pre-test was 8.64, rising to 13.12 for the post-test after the online lesson had been administered. For unit 2: narrative tenses: simple past, past perfect, past continuous, the mean score for the pre-test was 9.00, increasing to 13.18 for the post-test. For unit 3: future forms: present continuous, be going to, will, the mean score of the pre-test was 9.12, increasing to 13.58 for the post-test. For unit 4: quantifiers, the mean pre-test score of 9.06 rose to a mean post-test score of 13.42.

Regarding the statistical results of the t-test, each of the four grammar units had a p-value of <0.001. With a p-value of <0.001, the pre-test and post-test comparison for each grammar unit showed that there was a significant difference between the two groups. This data supports the idea that online grammar learning is an effective way to increase students' understanding of grammar points and how to put them to use.

The participants' behavior during online learning sessions

During online sessions, many students consistently kept their cameras and microphones turned off, despite encouragement to keep them on. When they did engage, they typically activated their microphones while leaving their cameras off, making it difficult to gauge their non-verbal reactions. However, they often completed exercises in the textbook, even if they did not actively participate in class activities or ask questions. The key details are listed in the table below.

Unit 1	All 33 students only used text messaging to provide answers for exercises. Two microphones were falsely activated, then deactivated. There was one direct message sent by mistake and one text message asking for assignment clarification.
Unit 2	All 33 students did not interact, with cameras and microphones consistently off.

Unit 3	All 33 students only used text messaging to provide answers for exercises. One student briefly activated the microphone then deactivated it after being alerted by classmates. One student accidentally activated the microphone while playing music, and the teacher intervened. One student texted to request a private meeting post-class about an assignment.
Unit 4	All 33 students did not interact, with cameras and microphones consistently off.

Discussions

This part discusses the research results and supplies pedagogical implications based on this research study. It is divided into three sections.

The first section examines the learning progress of grammar through online learning and the differences between pre- and post-test scores. The second section discusses challenges during online learning sessions faced by the students and how their situations could be improved.

The overall picture of grammar learning progress through online learning

The findings from both comprehensive and unit tests indicated that teaching grammar led to a notable improvement in students' grasp of applying grammar concepts. Before the learning process, the students' grammar proficiency was at a modest level, with an average score of 29.35 out of 60. However, after the learning sessions, this average increased to 40.32. Although this shows improvement, there is still room for further enhancement. Their progress correlated with each unit's advancement, indicating their adaptability to online learning methods, with their scores rising from approximately 50% to around 65%. These results underscore the importance of further research comparing online learning with other modes. The study also suggests that the online learning environment may not foster learning as effectively as face-to-face interaction due to limited human engagement and reliance on external resources, aligning with a study conducted in 2022 by Faturoti.

Challenges in online learning

In the realm of online learning, students observed how disparities in their socioeconomic backgrounds directly impacted their learning capabilities.

Online education necessitates access to digital resources and electronic devices, which some students found to be financially burdensome for their families. Moreover, they felt that online learning placed too much reliance on external factors beyond their control, such as consistent internet connectivity and the quality and availability of electronic devices. These findings align with a 2011 study comparing student satisfaction with online learning versus that of face-to-face learning, which indicated lower satisfaction with online learning (Macon, 2011). Students recognized online learning as a feasible option for individuals with commitments like remote jobs, but those fully committed to their studies preferred traditional classroom settings. Additionally, motivation emerged as a critical factor for learning success, where motivation, time management, and academic success were intertwined, highlighting the challenge of self-motivation in online classes. Consequently, the academic outcomes of online learning were perceived as inferior to those of face-to-face instruction.

Nevertheless, online learning is not without its advantages. Online learning was found to offer enhanced flexibility and afford students more personal time, aligning with findings from a study by Serdyukov and Serdyukova (2012) emphasizing the importance of time efficiency, particularly for students juggling multiple responsibilities. A study by Chen (2023) concurred with this, stating how online learning provided flexibility, time and cost savings from eliminating commuting, a comfortable and secure home learning environment, and enhanced class interaction via chat functions. This increased accessibility to education was facilitated by reduced preparation time for lessons, enabling students to allocate more intervals for rest and preparation. This shift positively impacted students' time management skills. To optimize future learning experiences, it is imperative to weigh the pros and cons of both grammar learning methods and identify the most suitable compromise.

While Wighting et al. (2008) argued that online students inherently possessed greater motivation compared to those attending physical classrooms, it is crucial to recognize that the technological landscape available to students in 2008 differed significantly from what was accessible during the 2020 coronavirus pandemic. Motivation plays a pivotal role in prompting students to engage actively with their lessons and participate in online assessments, which directly influence their grades. Students' views on online education and their participation in online activities both have a direct impact on their online learning experiences (Tan et al., 2024). The level of motivation determines whether students merely listen passively or actively involve themselves in their studies. Those who exhibit sufficient motivation to fulfill their classroom obligations tend to achieve greater success than those who struggle to muster the minimum effort required for their studies.

As education stands as a pivotal factor in societal progress, it becomes imperative for the state to extend aid to students encountering challenges due to resource constraints. Research conducted by Barrot et al. (2021) highlighted that amidst the pandemic, students encountered significant hurdles in online learning, with the lack of adequate space for lessons and study sessions emerging as a primary concern. This issue was particularly acute in developing nations like Thailand, where the scarcity of free, public spaces left students with no alternative but to utilize crowded and suboptimal environments for studying. Furthermore, access to a reliable internet connection and necessary technological tools, such as functional online applications, were deemed essential for the success of online learning. These challenges underscore the need for the government to devise sustainable solutions for facilitating online learning, considering its inevitability in future educational endeavors.

Collaboration between the state and educational institutions becomes crucial in devising strategies to alleviate the complexities associated with online learning and mitigate the disparities arising from students' economic backgrounds. Conducting a needs analysis study could aid in identifying the specific groups of students deserving of state-sponsored assistance, thereby ensuring that their learning experiences remain unhindered by external factors beyond their control.

Limitations and recommendations for further research

The study was confined to university students in Bangkok, Thailand, limiting its generalizability to the wider Thai educational landscape. Future research should explore grammar learning strategies across diverse learning channels, such as video platforms or webinars and online workshops, and student demographics to enable broader generalization. This could involve investigating students at different educational levels, such as secondary school or graduate students, to compare and contrast results.

Conclusion

The primary objective of this research was to investigate how university students learn grammar through the online channel and their behaviors during lessons. Teachers may further investigate whether better engagement during online lessons would impact the grammar learning effectiveness of EFL students or not and what could be done to encourage more active engagement in online classrooms. The state and educational institutions can collaborate to simplify online learning for students and address the disparities stemming from their economic backgrounds. Conducting a needs assessment

is essential to identify deserving students who require state assistance, ensuring that external factors do not impede their learning experience

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