

Implementing Digital Techniques to Stimulate EFL Students' Engagement: A Case Study in Vietnam

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ABSTRACT

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This is a mixed-method case study on the use of digital tools to encourage student collaboration in an EFL program class at the University of Economics – Technology for Industries (UNETI). The data were gathered via semi-structured interviews with the teacher, observations, and questionnaires. On the basis of textual and statistical data, the results indicated that both teacher and students were using a variety of digital technologies. Participants are reported to have used digital tools to deliver content, organize class activities, upload and download materials, communicate and interact with peers. The study reveals that students felt motivated through the specific use of technology in the classroom, raising participants' confidence in interacting with collective learning networks and accessing online activities through digital technologies. The research further demonstrates that teaching methods which promote cooperation have consequences for institutional practices in professional development as well as learning assistance schemes and teaching practices.

Introduction

A great bulk of educational researchers have studied one of the most important factors during the past decade: student engagement. Coates (2005) states that the primary topic focused on deciphering the underlying significance of students' actions regarding the teaching and learning process. Additionally, digital technology has permeated every area of life, including schooling. Educators and politicians have also pushed for the incorporation of digital technology into education. Students now study in a different way than they did in the past. They are surrounded by technology and have instant access to a wealth of information. According to Cooner (2010), 92% of students had access to technology at home, but less than half used it for education. Pedagogy must evolve together with the times; however, students may lose motivation and interest if teachers continue to teach topics and skills that they believe are irrelevant and

unusable in the real world (Cubeles & Riu, 2016; Ernst & Moye, 2013; Chuang et al., 2015). Through the use of technology in education, teachers will be able to inspire and engage all children, from learning impaired to brilliant and talented. Moreover, both students and teachers profit from the use of technology in the classroom (Flanagan et al., 2013; Coates, 2010, Chow & Armatas, 2018). Liu (2016) claims that combining real-world applications of technology with other academic subjects helps motivate students. By connecting inquiry-based learning to real-world issues, students' intrinsic value of learning increases, thus boosting interest and motivation (Usher, 2012). Additionally, students may gain competence by applying abstract concepts to real-world situations. Teachers may alter their instruction, engage students, and accommodate students of various skill levels by incorporating technology into the classroom.

Although digital technologies are used in education, different studies indicate that their usage is restricted and dispersed (Corner, 2010; Flanagan et al., 2013; Coates, 2010, Chuang et al. 2015; Ho, 2019; Nguyen, 2020; Manca & Ranieri, 2016; Henderson et al., 2015). In reality, some studies advocated that technology is utilized for administrative duties rather than instructional assistance (Ho, 2019; Nguyen, 2020; Pham, 2020). The difficulties of using digital technologies in education, the significance of adopting and using them in schools cannot be overstated, which should be recognized and handled. Furthermore, due to the COVID-19 epidemic, few researchers believe political choices drove digital technology into classrooms (Teo, 2010; Thomas et al. 2013; Ho, 2019; Nguyen; 2020; Pham, 2020; Van et al., 2021; Hoang & Le, 2021). However, school personnel must alter pedagogical methods and modify learning settings. Wyatt et al. (2010) advocate that instructors were mandated to incorporate digital technology into classroom instruction after school leaders and the authorities decided to do so.

Vietnamese educational system has been incorporated with a similar paradigm in accordance with technology-based instruction. The Ministry of Education and Training's Directive No. 9772/2008/CT-BGDDT (2008) mandated that institutions enhance their use of information and communication technologies (ICT) in teaching and training. According to the ICT Development Index, Vietnam's access to ICT has substantially increased since 2000. This is consistent with the Southeast Asian Ministers of Education Organization's (SEMEO) 2010 study, which said that policy guidelines, technology infrastructure, and resources should assist schools in Vietnam in transforming teaching and learning methods via the use of technology. These critical elements have the potential to make it possible for technology to be integrated into education in Vietnam (Hoang & Le, 2021). Especially in the COVID-19 epidemic, according to Nguyen (2021), institutions and students rely heavily on digital technologies to educate themselves. The mobility restriction order makes it difficult for educational institutions to maintain face-to-face sessions with students. In order to maintain instructional programs, pedagogical academics count on the development of the Internet and digital networks (Chau, 2021; Nguyen, 2021). During the pandemic, nations with strong internet infrastructure and gadgets can react better. The epidemic not only affects economies and supply chains. However, the COVID-19 epidemic has put the idea of digital remote learning on hold. According to several studies that are shown to be insufficient for digital learning, online and distant learning are possible with existing

infrastructure. Following the epidemic, academics have been debating the topic of digital transformation education. Many worldwide forums anticipate that education's future relies on the digital revolution as other areas of everyday life. In addition, numerous variables have been identified as influencing how teachers incorporate technology into their classrooms, including teachers' intensity of usage, related skills, confidence in utilizing digital techniques, learning perspectives, and access to technologies.

However, it is unknown how lecturers in Vietnam utilize technology in academic practice. University instructors are required to acquire the skills and information necessary to instruct students using digital technology (Nguyen, 2020). While this, educators do not integrate technology into their classes despite being conscious of the potential advantages. This raises the question of how well pedagogical institutions use digital technologies to improve the teaching and learning environment. Another significant problem was along with attitudes among teachers and students when they engaged in classroom activities with technology. To address this issue, the researcher examined how teachers and students at the University of Economics – Technology for Industries (UNETI) use digital technology to advance their teaching and learning methods and their perceptions towards the implementation of digital techniques.

Literature review

Student engagement

Student engagement is defined as a meaningful collaboration throughout the learning environment that should emphasize the correlation between students and teachers, classmates, institutions, instruction, syllabus, and curriculum (Bui et al., 2021). In addition, it could possibly be explained that students' engagement could be a powerful basis for the academic lecturers to design an appropriate and effective educational technique to maximize students' learning experience.

Student involvement may be characterized as behavioral, cognitive, and emotional engagement, according to Fredricks, Blumenfeld & Paris (2004).

Tour (2015) demonstrated *behavioral engagement* as students' visible desirable exhibition. In other words, it entails observing students' active participation in connection with school and class regulation and procedures. It could additionally indicate how persistently and attentively students perform on the assigned tasks.

Cognitive engagement, defined by Fredricks, Blumenfeld & Paris (2004), is evidence of how much students devote time, effort, and energy into learning processes. To be honest, the analysis evaluated learners' critical thinking to expand on the information being presented in class. Students must be engaged in their cognitive processes and motivated to exercise self-control throughout the learning process.

Emotional involvement is one of the key components of student engagement. Cognition-

emotional activation aligns with emotional responses to learning-related problems, such as an institution, class, instructors, or classmates (Tour, 2015). Students' reactions to the task's completion should be categorized under the general theme of negativity. It involves positive appraisal associated with eagerness, interest, motivation, excitement, or curiosity. However, the negative distribution consists of anger, disappointment, worry, stress, or fear.

Student participation has generally been regarded to be the fundamental topic, which nearly all teachers should realize. When assessing and analyzing student involvement, they may create a more effective syllabus using instructional resources, course content, and methods to transmit the desired information.

Digital techniques

The concept of digital techniques in education

The digital era has elevated technology to a key role in conceptualizing language change. The teaching and learning of the English language have shifted dramatically as a result of the unprecedented entrance of digital technology. Without a doubt, Trowler (2010) says that technology advancements have succeeded in displacing conventional teaching methods and thus assisting learners in broadening their perspective on the learning process inside classrooms and outside of them.

The implementation of digital techniques in EFL worldwide classes

Teachers' use of digital techniques

Educators are increasingly using digital technologies for a variety of instructional objectives. These objectives need the selection of suitable digital technologies to facilitate the teaching and learning processes. Teachers use technology for a variety of purposes: to improve student's academic achievement (Al-Hariri & Al-Hattami, 2017; Bond et al. 2018), to increase students' motivation to learn (Ho, 2018), to increase student engagement (Coates, 2015; Nguyen, 2020; Pham, 2020), to provide opportunities for student collaboration (Nguyen, 2020; Pham, 2020), to facilitate communication between students and the lecturer and interaction among students (Fredricks et al., 2004). These various goals need the development of targeted instructional methods for incorporating technology in order to impact students' learning (Pham, 2020) favorably. As a result of this requirement, a growing number of studies have been conducted on teachers' usage of digital technologies.

Some digital devices have been progressively utilized in order to enhance teaching and learning processes. Studies by Liu (2016), Chow & Armatas (2018), and Yin (2018) indicate two major pedagogical goals for classroom technology are learning management systems and presentation software, in addition to web 2.0, e-portfolios, and e-assessment. Chuang, Weng & Huang (2015) distinguish three different types of tools, namely graphical and visualization tools, communication technology tools, and social media tools. Cubeles and Riu (2016), who hold the same views, value first-hand learning experiences comparable to those reported in the previous author's research, then social media and mobile devices, and finally learning management

system tools. Students' academic performance, students' motivation and interest, as well as students' peer interaction should all be attributed to many different reasons.

Teachers may use digital technology in a variety of ways in their classrooms. Kirkwood & Price (2014) reviewed 47 publications on using technology to improve teaching and learning in higher education and found three categories. These include “replicating current teaching practices, augmenting existing teaching, and/or changing teaching and learning processes and outcomes” (p. 11). Each category represents a unique instructional application of digital technology. While the first two seem to seek to improve instructors' current methods, the third implies substantial pedagogical shifts.

In the first category, instructors utilize technology to provide content to students or “different technologies for providing the same information or resources to learners” (Kirkwood & Price, 2014, p. 13). In other words, technology supports current teaching. Teachers do not alter their teaching methods but use technology to convey them, which was used in several studies, for example, instructors utilized “synchronous” (e-lectures) and “separate” (PPT and audio files) presentations to lecture (Griffin et al., 2009). Green et al. (2018) also looked at the usage of YouTube videos for case teaching in health management and policy. They found YouTube videos to be a “useful source of information to complement current case teaching” (p. 48). The use of model videos in developing students' oral presentation skills and Blackboard Learn in face-to-face courses are examples of how teachers replicate their existing practices using new technologies.

In the second category of complementing existing instruction, lecturers offer students with other versions of course materials, resources, or tools. Technologies are supplemental instructional aids. Teachers use digital technologies to access and improve students' learning. Several study findings fit under the second group. For example, instructors produced podcast episodes to accompany each course so students may revisit their lectures (Green et al., 2018). According to Chow et al. (2018), 95% of university instructors utilized “Content” features more than other tools in their LMS.

This indicates that instructors used the LMS to provide curriculum and “store learning resources for students to download or access” (p. 133). This finding matches findings from research on the use of LMS in higher education as well as instructors' use of technology tools to enhance student learning outcomes (Liu, 2016).

Lecturers frequently utilize digital technology to perform and improve current activities (Kirkwood & Price, 2014). At this level, instructors simply alter the technology they employ in their classrooms, not the method they educate. Tour (2015) discovered that instructors used digital technology to reinforce current pedagogies, despite the affordances of connectivity, experimentation, sharing, collective intelligence, empowerment, and multimodality. Tour ascribed this to teachers' beliefs or attitudes about the function of digital technology in teaching and learning, which seemed to have a substantial effect on their students' experience (Kirkwood & Price, 2012).

Thirdly, instructors utilize digital technology to create “structural improvements in teaching and learning processes” (Kirkwood & Price, 2014, p. 13). Teachers modify instructional activities or modules to improve student learning results. Developing blended learning possibilities with online lectures to engage students in active involvement (Cooner, 2010). Teachers prefer to utilize technology to replicate and reinforce current practices. Thus this kind of transformational technological intervention is uncommon in an empirical study. Also, changing educational methods may be difficult for instructors.

Students are provided with several versions of course materials to support current learning resources. In these circumstances, these technologies are very critical to student learning. The aforementioned studies, which were conducted using LMS platforms, Facebook, and other mobile-assisted apps, all show that the previously stated assumption is true. To provide further assistance with teaching practice, a wider range of mobile-based technologies apps, such as Facebook, Instagram, or Twitter, were implemented in Liu (2016), Manca and Ranieri (2016), Chow & Armatas (2018), and Yin (2018). In Chow & Armatas (2018), 1457 lecturers were examined as part of a study on teaching practices and an LMS as a learning platform. In particular, the findings showed that 99% of participants used LMS to store instructional materials for students to download. Technical instruments were used to engage students in learning activities. They did not alter the teaching approach, rather concentrated on supporting current practices. According to the results in Tour (2015), instructors thought that digital tools were useful and major instruments in correcting students' mistakes and doing anything else, such as experimenting and sharing.

Digital technology, moreover, was employed while lecturers additionally altered and innovated the teaching and learning process. It is advocated that classroom activities were redesigned to suit the learning environment and boost students' outcomes. Coates (2005) highlights a selectedly new teaching method called blended learning prospects integrated with e-learning lectures to collaborate students in energetic-mannered participation. However, this type of transformation occurs rarely, particularly in Taiwanese teaching contexts, since it requires the teacher much effort and preparation to reproduce and reinforce existing practices (Liu, 2016).

Students' use of digital technologies

Several studies have shown that students utilize digital technology in several ways, including Bond et al. (2018), Delfino (2019), Henderson et al. (2015), and Sweeny (2017). The population of more than 1500 students was assessed in Henderson et al. (2015). These results revealed a combination of digital tools and applications, such as obtaining online learning materials via LMS, utilizing Google, accessing video-sharing websites like Youtube, and interacting with friends on Facebook. Bond et al. (2018) also investigated German instructional contexts with roughly the same participants as the previous study. 80% of the students utilized technology-based applications like LMS, Facebook, and email to communicate with one another, while doing given assignments and homework. In a nutshell, the researchers discovered that students mostly employed technology to manage schedules and deadlines while staying up to speed on school-related news. Without question, technology is a fundamental component of student

learning and staying informed.

Various studies show how students perceive and utilize technology. Henderson et al. (2015) surveyed 1658 Australian university students. They discovered that pupils used digital tools for various activities while learning. For example, students used the LMS and online library to access "official" digital resources like e-books or e-textbooks, while others used search engines like Google, YouTube, and Facebook to collaborate with classmates and instructors. These results support Delfino's (2019) findings that students used virtual learning environments to access course materials such as e-books, lecture notes, and announcements. Mobile phones or social media were most often used to communicate with friends, discuss tasks, and prepare for exams. Not only do students utilize digital technology to share materials, but they also engage with others through learning networks (Sweeney, 2017). Studying is done by approximately 80% of German students, according to Bond et al. (2018). According to prior studies, students use technology primarily for learning logistics. Henderson et al. (2017) showed that most students (n=1,658) used technology to manage calendars, timetables, deadlines, and course requirements and stay up with university news and course material. Students' highest digital competency was accessing and posting information and resources, responding to others, and gaining knowledge via queries. The technology available to pupils was also limited. Lai and Hong (2015) studied 880 New Zealand students' use of digital technologies. "Only used digital technology for academic, social, and personal activities," they found. This finding echoes prior research (Tour, 2015; Pham, 2020) and possibly explains that students are unaware of how digital technologies may help them study (Pham, 2020). This aligns with teachers' objectives for utilizing technology in the classroom. Students tend to oppose change when teachers seldom use new tools.

Stimulating students with digital techniques

According to Chau (2021) and Nguyen (2021), science and technology have improved and modernized humanity's prosperity. Technology innovation is a great way to improve the quality and efficacy of second language teaching and make students more employable in further education. In this instance, technology plays an important role in exposing students to current learning materials and genuine inputs. Several research studies have examined the beneficial effect of integrating digital techniques in education to improve students' language competence. The technology acceptance model originates in a survey question delivered to 159 students (Teo, 2010). The author revealed that the technology acceptance model was a significant and strong model for helping technology adoption, in line with communicating participants' viewpoints on utilizing digital methods. Similar results have been reported by Thomas et al. (2013) comparing Singaporean and Malaysian instructors. Despite their divergent belief, two distinct target groups recognized the significance of digital techniques. Also, motivation was important in Trowler (2010) and Liu (2016). An empirical study by Liu (2016) indicated that 14.8% of the teachers reported they took advantage of digital techniques because they could help students. 17% of the respondents consented that technology-assisted them in supervising students' behavior and routines. 31.1% of the respondents stated that technology-based

techniques encouraged students to be more engaged and motivated with more interesting and entertaining connections between teachers and students, or students and their peers. The positive effect was contributed via findings of Trowler (2010) at mobile phones, computers, and ipads that they may improve students' attentiveness and participation in class activities, accounting for 59% of participants.

Influences of digital techniques on teaching and learning process

With the goal of stimulating students who have difficulty in their learning process, many researchers explored the effectiveness of digital techniques, for example, Wyatt et al. (2010), Ernst and Moye (2013), Flanagan and Richardson (2013), and Delfino (2019). Students struggling with conventional classrooms are the primary focus of Wyatt et al. (2010). Academic learning is a problem that people will have to work to master. So, the writers adopted various approaches, one of which was to utilize "real world" applications, such as Facebook, Twitter, Instagram, or Youtube. Social isolation was a problem for primary school students, according to Ernst and Moye (2013). Low socioeconomic status students are a sign of this case study. The researchers proposed a technology education classroom method to regulate the courses. A safe and neutral place was created for children to develop their communication and social skills. When technology is used in courses, it is possible for people to satisfy their emotional needs and increase their social connections. The study performed by Flanagan, Bouck, and Richardson (2013) focused on a middle school special education teacher who taught reading to students in a special needs classroom. The participants of the study had a significant rate of impairments. It was too costly and needed specialized training for technology to be effective. Most of the current work in this field relates to assistive technology and education.

Relevant studies in Vietnamese teaching context

According to Hoang & Le (2021), the mandatory shift of COVID-19 to online education and learning has evolved into a necessary component of all students' lifetime learning. Regardless of their ICT abilities, teachers will be forced to adapt their delivery methods while using ICT. Instructors are required to comply with this criterion. To overcome the challenges of teaching, teachers must depend on this area of professional knowledge and skills. Hence, there have been several studies on the implementation of digital techniques in teaching and learning English in the Vietnamese context (Ho, 2019; Pham, 2020; Nguyen, 2020; Hoang & Le, 2021; Van et al., 2021).

The research led by Ho (2019) seeks to determine whether Quizlet is more successful than traditional techniques like paper flashcards in assisting English learners. The trial comprised pre-test, training (two one-hour reading and vocabulary learning sessions each week for four weeks), and immediate post-test, as well as delayed post-test. Every single student in a single classroom was studied. They were divided into two groups. Students got twenty new words from a reading book each week. During the first two weeks, group B utilized paper flashcards. Group A then used paper flashcards, while group B followed up with a Quizlet quiz two weeks later. This was offset by having two separate tools. Six participants were given prior training

sessions' videos, screenshots, and pre- and post-test questionnaires. The technologies seem to enhance vocabulary learning. Quizlet appears to be better than flashcards for vocabulary development. Quizlet also satisfies students' language learning requirements. Quizlet's flashcards do not motivate students to improve pronunciation, whereas paper flashcards do. In English as a second language, apps seem to be better able to provide a wider range of linguistic settings and the need for exposure to native English in the Vietnamese educational system.

Pham (2020) examined the participants' opinions on mobile-assisted language learning. The study obtained noteworthy results via the use of survey questionnaires as the main data collection method. Qualitative and quantitative findings indicated that participants perceived mobile-assisted language favorably. The questionnaire was designed to meet the study's goals. 95 individuals participated in the poll. The mixed-method research methodology yielded many significant findings. Overall, participants found mobile devices useful in the classroom. They said mobile-assisted language learning was useful and easy to use. They also got enthusiastic when studying using mobile gadgets in class. Future language learning activities make sense because of this. Mobile-assisted language learning is seen as a new teaching and learning technique. Furthermore, instructors and students should strive to enhance their digital literacy.

A case study conducted by Nguyen (2020) implemented Kahoot, a mobile-assisted application and a descendant of "Personal Response Systems" in the investigation. This study aims to discover how the impact is measured with respect to Kahoot. To determine learners' perception on Kahoot, survey data using a Likert scale was gathered. Kahoot's quiz questions included more open-ended alternatives rather than closed-ended ones. The findings obtained previously suggest that Kahoot, through enhancing class interaction with the teacher, may help students learn better. This fosters customized and interactive learning, resulting in more student engagement. An efficient and less intrusive method to assess student learning is by using Kahoot. Based on these results, Kahoot seems to be a sound teaching strategy.

Hoang & Le (2021) examined English teachers' perceptions towards switching from face-to-face to online courses at various Vietnamese vocational schools. A questionnaire survey and nine in-depth interviews were conducted to collect data from 45 vocational English instructors. The findings were used to assess vocational English teachers' views towards using technology in teaching English via virtual classrooms. This research advocated instructors' positive attitudes towards online teaching, although teachers were reported to be under pressure when being forced to shift to online mode. The authors also emphasized teachers' awareness and flexibility to adapt their teaching conditions during the outbreak of COVID-19.

Sharing the same view as the previous authors, Van et al. (2021) investigated the popularity and efficacy of using technology in English teaching among third-year EFL students at Van Lang University. Data analysis from the questionnaire and interview indicated technology enabled students to frequently make use of educational apps, smartphones, and tablets. The authors concluded that using technology to study English had the potential to encourage students to enhance their language skills and accelerate their learning process.

The study referenced in this section makes several significant points. It is recognized that the use of technology contributes to students' development of greater self-confidence, thus boosting motivation and a desire to study. More sophisticated use of technology in pedagogy enables instructors to be inclusive of students at all levels. Recognizing and using such a framework enables school administrators to collaborate more successfully with faculty and students who utilize technology in the classroom and in the real world. To be most successful, students must be taught in their preferred method of learning. When teachers are placed in a technology-supported environment that is more conducive to their students' learning styles, they can utilize a variety of technologies that have the potential to engage students and support constructivist learning approaches, such as Google Docs, websites, computer software, LMS, PowerPoint, clicker-based response systems, and other types of interactive technology. Educators' objective is to integrate current technology to facilitate effective learning. Digital technology has become a popular trend across the globe, and Vietnam is not an exception. Most of the aforementioned studies have also brought to light the topic of students and instructors on digital methods in higher education. Additional advantages were identified in the literature review: digital gadgets or apps were reported with various effects on instructors and students. Most of the reviewed articles explore vocabulary acquisition or participants' attitudes in general. Very little is devoted to individual language learning use and their habit of using digital techniques. Hence, the goal of this study is to find out if students and teachers at a high-education institution like the University of Economics–Technology for Industries are receptive to utilizing digital tools, how they utilize technology applications in the teaching and learning process as well as their perspectives with specific components namely *behavioral, cognitive and emotional engagement* towards technology's usefulness on their interaction in language classrooms.

Research Questions

This research aims to study how teachers and students implement digital technology in EFL classes and investigate their perceptions towards the use of new teaching techniques; thus, two research questions were addressed as follow:

1. What and how are digital techniques used in EFL classes at UNETI?
2. What are teacher and students' perceptions towards the implementation of digital techniques in EFL classes at UNETI?

Research methodology

Pedagogical setting & participants

University of Economics – Technology for Industries (UNETI) was established in 1956, regulated by the Ministry of Industry and Trade. Students can select a variety of majors regarding Accounting, Business Administration, Finance and Banking, Engineering, Electricity, Electronics, English Linguistics, and so on. English is a mandatory subject at this school, and it must be completed with four credits of English language study and at least 450 TOEIC in order to graduate.

The case analyzed in this research was called Vivian and one of her EFL classes at UNETI. The study was conducted among 30 second-year elementary students. Those students were forced to pass compulsory exams to enter the university. Then, they needed to take the placement test to be placed in the appropriate class. The textbook Market Leader (3rd edition, elementary) is being used in class for English 2. Students are required to accomplish four language skills. Moreover, the grammar and vocabulary included in each lesson help complement the students' practice of language skills. It seems as if lecturers have tried to accommodate diverse learning styles and study methods among their university students to see whether they can better engage them in learning English or not. Students were encouraged to utilize the LMS to access course materials and communicate with the instructor. They were permitted to use computers and cellphones to supplement their studies, especially in the situation of the COVID-19 pandemic.

Vivian, the lecturer, has been teaching English at UNETI for 12 years. She is a linguistic master, as well as the head of a private English center that offers supplementary English classes, for example, for high school and university admission exams. This implies that she has excellent subject understanding and confidence in teaching English 2 to pupils.

The researcher, therefore, chose to do a case study on how teachers and students use digital methods in teaching and learning English 2, in accordance with investigating their perception. Due to ethical considerations, participants were put under false and disguised identities so as to ensure anonymity.

Design of the study

Stake (2013) claims that a case study studies a specific instance and uses that understanding to comprehend crucial details. Stake (2013) suggests the use of a case study when a question about current occurrences that an investigator has no influence over is posed. A case study enables academics to examine how the situation around the phenomena influences it. The case study enabled the research to examine participants' classroom experiences and practices, interviews, and focus groups. Many case studies serve to examine phenomena, populations, or general conditions (Stake, 2013). Researchers analyze numerous examples in order to provide various views on the problem. This encourages research to examine both similarities and differences among instances. Every single instance is called a "phenomenon" in a certain environment.

This study highlighted a typical case at UNETI, hoping to provide vital insights and rich information first, then lead to in-depth understanding. The case of English non-majored classes includes 30 students from the Faculty of Accounting, and their lecturer has nearly 12-year of experience teaching English as a foreign language.

Data collection & analysis

Due to the mixed-method case study research, the researcher selected three data collection tools: semi-structural interviews, observation, and questionnaires. Prior to the study, participants were provided with research information, their program role, and withdrawal rights. Furthermore, researchers obtained authorization to record both kinds of interviews and classroom

observations. COVID-19 epidemic has necessitated researchers and participants to meet online for all data collection procedures, as they use Google Meet, phone calls, Google Forms, and other technological tools.

The lecturer was interviewed individually: before and after using digital methods in a class. The researcher was permitted to observe one class lecture after the first semi-structural interview with the teacher. After a four-week project, a questionnaire was delivered to the students in order to investigate their attitudes towards using digital techniques in virtual classes.

A *semi-structured interview* was done in English, and after being transcribed, the document was sent to that teacher to check to minimize misunderstanding and ambiguity. The interview lasted between 45 and 60 minutes. The audio recording allowed the researcher to revise the prompt, improve interviewing methods, and alter the focus of the discussions. The author conducted a second interview with the lecturer after the observation and focused group in order to elicit discussion about their teaching practices using digital methods in relation to the observed films in class. Transcripts of audiotapes were sent to interviewees prior to the data processing to ensure the accuracy of the data gathered (Stake, 2020).

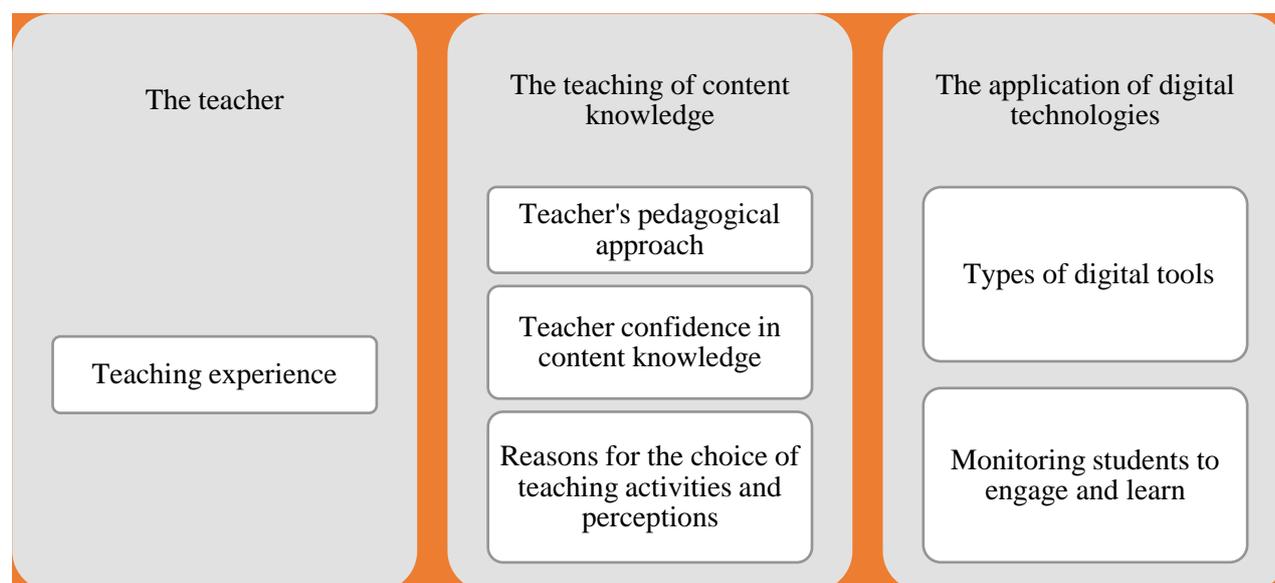
According to Teo, Luan and Sing (2008), *observation "is a source of evidence capturing particular occurrences at a certain period of time in a particular setting."* The class observation was conducted the week after the first interview. The lecture lasted 135 minutes on Google Meet due to the COVID-19 pandemic. The teacher and students' responses to the use of digital techniques were carefully observed to facilitate stimulated memory interviews. Such observation aided in the comprehension of the participant's real usage of technology and any classroom issues. The notes focused on (1) the manner in which lecturer and students interacted, (2) how teacher conveyed topic material to students, provided directions in English and integrated digital tools into their instructions and (3) students' reactions and engagements with classmates and their use of technology.

The questionnaire is considered as one valuable tool to collect valuable and numeric information from the target population. The researcher made a decision to adapt the questionnaire by Flanagan, Bouck & Richardson (2013) as this research had similar aims in examining types of technology, students' frequency, and their perceptions towards using digital techniques in class. The Likert-scale was used to easily quantify and evaluate the answers. Respondents were asked to rate the 29 items by selecting one of five options: *strongly disagree, disagree, neutral, agree, strongly agree*.

With regards to data analysis, the research employed Creswell's (2008) six-step qualitative data analysis followed. The data was first translated and transcribed into a textual form and then divided into separate files using the students' pseudonyms. Translation and revision were undertaken to avoid confusion. When the researcher got the written information, they went over it a second time in order to get a full understanding. Categorization takes place at the third step, shown in table 1. Once the data sources were grouped into such themes, they were described and linked together to illustrate the results. This investigation was required to establish whether

the results of this research were compatible with or contradictory to those of previous studies.

Table 1: Categories of separate qualitative data collected through interview and observation



Secondly, SPSS software was employed to analyze the quantitative data from the questionnaire. The Cronbach alpha was calculated as well to guarantee the reliability of the questionnaire. The numeric data analysis offered the researcher an insight into three main concepts of student engagement, namely behavioral, cognitive and emotional engagement. The Cronbach's alpha coefficient is used to determine the internal consistency of a multiple-item questionnaire. The usual range is between .00 and 1.0. The Cronbach's alpha score was more than 0.80, indicating that all questions were constructed similarly. In a nutshell, the questionnaire was reliable and trustworthy. Cronbach's alpha is 0.83 in Table 2.

Table 2: Reliability statistics of the questionnaire

Cronbach's Alpha	No. of item
.83	29

Results/Findings and discussion

The teacher

Vivian was one of the educators in the high-quality program. To be frank, she believed teaching this topic would boost her English skills.

This education offers me the atmosphere to utilize English often. After that class, the way I spoke English was never the same. I believe I'm becoming better and better at pronunciation.

Vivian felt secure in speaking English in class. She felt that she understood the course material since she worked on the translation of the primary textbook used in the course.

However, she felt that the use of English sometimes hindered her teaching, as is seen in the following quote:

If I utilize Vietnamese, the narrative will be humorous, which may help students remember the information better. That's a lot of work.

It is thought that adopting English solely would not always be successful. Vivian's teaching was aided by digital technology. She used the software loaded on her laptop to prepare lectures, create presentations, or draw graphs and charts. She knew how to use various internet search engines for her lessons.

She intended to use digital technology in her teaching, but she did not have adequate time for it. Vivian has been trained to use Google Meet and LMS platform to teach online and communicate with students by posting lessons, assignments or even getting students' responses through a poll survey on that application. Her ICT skills with Powerpoint, computer game-based software or data-searching skill on the Internet was considered to be good as she has had much experience in E-teaching courses. Contrary to Hoang & Le (2021), the majority of the lecturer was unsure and not confident of their technological competence. However, Vivian reported that the use of digital advances as teaching assistance was still restricted and ineffective. This finding is consistent with teachers' experiences studied in Bond et al. (2018), Cubeles & Riu (2016), and Shelton (2014). When she taught, she urged students to be engaged and self-directed. She was cognizant of first-year students' problems, as indicated in this quote:

They must start learning English-related topics with zero prior knowledge or resources, or they may know the information but do not know how to express it in English. To study together, they haven't made any pals.

By offering them guidance on online resource uses and the merits of teamwork, she was able to ensure that they would rapidly adapt to the new learning environment. The results align with what has been researched in Sweeny (2017), Tour (2015), Ho (2019), and Nguyen (2020).

In short, Vivian felt secured in teaching in English since she had prior expertise. When she tried to teach using English, she realized that she sometimes could not explain herself as efficiently and articulately for the students to absorb the target language. Vivian intended to incorporate

digital technology into her lectures as a part of his overall teaching strategy. She was unable to do so because of time limitations. Those obstacles could be explained due to the time period for each English lesson which only lasted for 90 minutes. In addition, both students and teachers may meet disconnecting problems via the Internet, which lengthened the waiting time for network connection. It is believed that not only Vivian's case but also teachers and students in Cubeles & Riu (2016), Sweeny (2017), Bond et al. (2018), Nguyen (2020), and Van et al. (2021), to some extent, need to overcome this challenge.

Teaching content knowledge

Vivian had previous experience teaching in English, having "taught students at different English proficiencies. Therefore, it is certain that dealing with one level of English proficiency class brought no hardship for her. Besides, this quotes her rationale for why she should take over the course:

I've studied this topic several times, and I'm sure that I fully grasp the material. In addition, those topics were common themes....

Vivian followed the curriculum and lesson plans recommended in the instruction manual. The lecture format remained the same throughout the course, starting with explaining concepts, providing examples, and encouraging students to practice. It finished off with "*a case study for students to discuss to understand how the theory works in real situations.*"

She supposed that pupils would comprehend and recall common examples. Additionally, Vivian was worried that students would not grasp the subject matter. As first-year students, they lack the appropriate vocabulary for reading texts or listening recordings in the course. She said she had to review her teaching method to find the appropriate technique to motivate students in learning English. She reported, for instance, she tried to talk more with students to explore their needs and wants. She also gave students a mid-term exam to "*refresh themselves, review the teachings, and reset their goals for their future assessments.*"

Vivian thought the lesson comprised a lot of tasks and exercises for students to complete, and she also had worries about students' involvement due to the challenge of the material. Recognizing students' exhaustion and dissatisfaction was sometimes difficult for her.

I monitor students' facial expressions and behaviors in class. When things aren't obvious, people begin to become sidetracked. When overloaded, they get fatigued and lose focus. Should I continue or not?

Such a rich curriculum has a pronounced effect on both teachers and students.

Vivian said that group work activities were not available for learners in class. She felt that group talks were valuable to participants, particularly when they lacked self-confidence in talking to the instructor. However, there was no time to do group work efficiently. However, since new students are so different from others, he did not want to promote collaboration in class groups. That echoes the findings in Wyatt et al. (2010) and Taylor & Clark (2010).

Throughout the classroom, Vivian used several instructional techniques to assist students to accomplish course goals which were demonstrated in Table 3

Table 3: Classroom observation – Summary of teaching stages

No.	Teaching stage	Activities	Objectives
1	Warm-up	Q&A: Ss were given a list of questions to answer, regarding anything that was unclear from the prior sessions.	<ul style="list-style-type: none"> - To recall important ideas and phrases to ensure that Ss understand the course material. - To encourage Ss to make question voluntarily and randomly.
2	Lead-in	Introduction: T outlined a plan for the lecture, including the lesson objectives.	<ul style="list-style-type: none"> - To properly educate Ss about what they will study. - To keep Ss aware of the lecture's main topics, so they could concentrate.
3	Presenting new concepts	Lecturing: Using slides sharing on Google Meet, T demonstrated how the theory and ideas work.	<ul style="list-style-type: none"> - To guarantee the comprehension of the key concepts. - To prove how they are implemented in real-world scenarios.
4	Practice	Group exercises: each S saw several examples on slides and then discussed the solutions in groups assigned in separate Breakout rooms in about 2 or 5 minutes.	<ul style="list-style-type: none"> - To have Ss apply the theory to do the exercise or discuss the situation.
5	Wrap-up	Some groups reported their responses randomly and gave additional comprehensive explanations.	<ul style="list-style-type: none"> - To ensure that they understood the theory and could apply it in practice.

Participation was greater in group practice sessions. Almost everyone understood what their peers were saying. However, debates required short answers with logical reasons. As a result, the researcher could hear the students replying but not answering their questions. Students were always encouraged to ask questions when they did not understand. Some rear participants would search for keywords and would write in their books. They accordingly identified themselves as information seekers on the Internet when they were encouraged to use Google or Wiki. Students' willingness to continue discovering learning materials on websites is close to journals by Ernst

and Moye (2013), Flanagan and Richardson (2013) and Delfino (2019), Van et al. (2021).

In conclusion, Vivian was well-versed in her subject and teaching experience, therefore increasing her confidence. She adjusted lessons using the syllabus and teacher's books. To help pupils follow her lectures, she offered examples and suggestions on how to better understand the subjects. The curriculum was too large and lacked enough time for pupils to be interested. This was not a consideration when creating the lessons. Teachers seldom prompted their students. Attending the practices, they primarily observed the teacher speaking.

The use of digital techniques

Vivian said that digital technology gave her assistance during teaching. She showed PowerPoint presentations to students through Slide-Sharing on Google Meet to contain the goals of each session, as well as explain and define key knowledge in each unit.

Table 4: Vivian's use of digital techniques to support her teaching

Digital technology	The Internet		LMS	Powerpoint	Computer software
	Websites	Google/ Wiki			
Accessing information	V	V	V		
Presenting information				V	
Processing digital objects					V
Gaming or interactive programmes	V			V	V
Communicating, collaborating or engaging	V		V		

Vivian had ready access to many online resources. She felt that PowerPoint presentations effectively showed the target knowledge. She found a number of views on the topic that could be found online and offline by using web-based tools. She believed that the incorporation of technology gadgets might both help lecturers and students. Participants administered their tests on computers with the Internet. She arranged a time for students to sit the exams and take the Google-form online test. Vivian utilized a monitor computer to curb student submissions and results. She offered additional clarification by saying:

Printing expenses are saved by doing tests on computers, even on students' mobile phones with the Internet. Students supported having computer-based exams since the results are available quickly. I did not have to grade the test, but I chose tests from the test bank.

All in all, students were hopeful about digital assessment. Such effectiveness of utilizing digital techniques was recorded during students' test-taking time online via Kahoot in Nguyen (2020) or individuals completing the poll in Pham (2020). Students' increased sense of taking

technology as their regular learning devices helped them build up more enthusiasm in classroom collaboration (Coates, 2015; Nguyen 2020; Pham, 2020; Van et al., 2021).

Besides, Vivian believed that the LMS at the institution was under-employed. She contacted students via the LMS to provide assignments or important information. She also posted the curriculum on the LMS, so that students knew the course goals. Vivian also had to use email and Zalo app to connect with students because of a technological issue. Students, for example, found it easier to follow the updated information because instant messaging or notifications continuously appeared on their digital devices whenever the lecturer posted. However, she felt that the technique was ineffective since the lecturer uploaded lessons containing material that she could not reflect on Google Meet meeting. Participation in the students' online group discussion took time. However, many lecturers at UNETI use LMS because of the university's mandate. She stated that LMS use was incentivized via bonus points given to instructors in their performance system. For her, she did not think that students comprehended online courses as clearly as face-to-face lessons. The systems were sometimes inconvenient, and some students found it difficult to get access to it.

The students

Table 5 below shows that the overall involvement of students at UNETI was high, with a mean score of 2.75.

Table 5: Summary of the level of Student Engagement

Dimensions of student engagement	Mean score	Qualitative interpretation (QI)
Behavioral engagement	2.80	High
Cognitive engagement	2.67	High
Emotional engagement	2.79	High
Average	2.75	High

Ranking:

1.0 – 1.7: very low (VL)	1.8 – 2.5: low (L)	2.6 – 3.3: high (H)	3.4 – 4.0: very high (VH)
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In detail, the highest mean score of 2.80 was behavioral engagement among its three dimensions. It was followed by emotional engagement with a mean score of 2.79, and the lowest-ranked item was cognitive engagement with a mean score of 2.67. The following table illustrated more specific information among each dimension of students' engagement.

Table 6: Level of Student Behavioral Engagement

Related indicators	Statements	Mean	QI	Overall mean
Behavioral engagement	1. Participate in class discussions.	1.60	VL	2.80
	2. Answer the questions in class actively.	2.12	L	
	3. Do all exercises or homework.	2.33	L	
	4. Take note in class.	3.67	VH	
	5. Get good grades.	2.10	L	
	6. Receive prompt written or oral feedback on your performance.	3.28	H	
	7. Attend every class.	3.89	VH	
	8. Attend class without completing exercises or homework.	2.45	L	
	9. Make sure to study on a regular basis.	3.46	VH	
	10. Do well on a test.	3.08	H	

In terms of behavioral involvement shown in Table 6, attending every class was rated at the highest level with a mean of 3.89; after that was the mean score at 3.67 was students' taking notes in class and followed indicator of 3.46 was students' certainty of studying on a regular basis. It reasonably aligned with what was observed in every class when most of students had to attend the class due to the university's regulations on students' attendance and absence. Besides, according to the teacher, they were obliged to write down the knowledge into their notebooks in each class. Moreover, from the observed information, every student who presented or did exercises in the class received the teacher's immediate feedback. In contrast to the three high indicators, the three lowest-rated ones were getting good marks (2.10), answering the questions in class in an active manner (2.12), and doing all assigned exercises (2.33). This might possibly be caused by students' experiences with English learning and their learning style or habits. As reported through the teacher's post-interview, Vivian said that not many students were into learning English. They were forced to complete English credits because it was a compulsory subject at UNETI. This also reflects the claim in Ho (2020) that students spent similar amounts of time when they studied with either digital techniques or flashcards. Concerning the great frequency of use of technology nevertheless, Ho (2019) indicated that participants' learning frequency was greater and brought more usefulness on learning speed, long-term memorization, and language development rather than paper-based learning materials.

That corroborates the positive findings in this study when students reported they did well on a test (3.08).

Table 7: Level of Student Cognitive Engagement

Related indicators	Statements	Mean	QI	Overall mean
Cognitive engagement	11. Present in class	3.78	VH	2.67
	12. Prepare two or more drafts of a paper or assignment before turning it in.	2.03	L	
	13. Use an electronic medium to discuss or complete an assignment.	3.89	VH	
	14. Discuss ideas from lessons with class members inside classroom	2.54	H	
	15. Use emails, LMS platform, Zalo, Facebook/ Twitter/ Instagram and Google Meet to communicate with teacher	4.00	VH	
	16. Discuss grades or assignments with teacher	1.67	VL	
	17. Work harder than you thought you could do to meet teacher's standards or expectations	2.69	H	
	18. Discuss ideas from lessons with class members outside classroom	2.35	L	
	19. Think about your study and find ways to make it more interesting to you	1.87	L	
	20. Look over your notes between classes to make sure that you understand the materials	2.47	L	
	21. Apply the learning materials to your life	2.21	L	
	22. Find ways to make the lessons relevant to your life	2.53	H	

Regarding students' cognitive engagement, it could be excluded from Table 7 that this aspect was high because of the overall mean score at 2.67. The highest calculated item was students' use of emails, LMS platform, Zalo, Facebook/ Twitter/ Instagram, and Google Meet to communicate with the teacher (4.00). The second-ranked indicator was students' use of an electronic medium to discuss and complete an assignment (3.89); the third one with the mean score of 2.69 revealed students' effort to work harder to meet teacher's standards and expectations. A possible reason is that they had to study over the Google Meet application during the intervention because of the COVID-19 pandemic. Hence, they did not have opportunities to communicate with their peers and teacher face to face. The most advantageous solution to tackle these problems was virtual communication through digital technologies. This brings positive impacts into desirable coordination with Trowler (2010), Teo (2010), Liu

(2016), and Pham (2020) when the utilization of technological advances inside the classroom contributed to students' participation. The three least items, however, were measured to be at the mean scores of 1.87, 2.03, and 2.21 significantly, interpreting students' thoughts about the study firstly and finding ways to make it more interesting to themselves, secondly their preparation two or more drafts of an assignment before turning it in; and finally applying the learning materials to their life. It is logically apparent that students could not show their autonomy or self-esteem in learning English as a foreign language. Their aim was merely to complete and pass the English subjects to move on with their academic transcripts.

Table 8: Level of Student Emotional Engagement

Related indicators	Statements	Mean	QI	Overall mean
Emotional engagement	23. Include diverse perspective in class discussion	3.28	H	2.79
	24. Work with other students on project during class.	2.68	H	
	25. Work with classmates to prepare class assignments	2.93	H	
	26. Really desire to learn the materials	2.28	L	
	27. Have fun in class	3.27	H	
	28. Be confident that you can learn and do well in class	2.97	H	
	29. Have serious conversations with classmates who are very different from your opinions	1.76	L	
	30. Talk with career plans with teacher	3.15	H	

With regards to students' emotional engagement in table 8, the average mean score was 2.79, which was reported to be high. To be illustrated, the highest-rated indicator was students' diverse perspective in-class discussion (3.28), and the second-ranked item was students' having fun in class (3.27). According to the interview with Vivian, various opinions might root from only some energetic and active students. They were claimed to participate in class discussions regularly or raise their hands voluntarily to answer the questions. In addition, regarding students' fun in class, it could be due to the application of computer games or online quizzes that she implemented in each class so as to motivate them and raise their interest in the class activities. On the other hand, students' having serious conversations with classmates was rated at only 1.76, and learners' desire to learn materials was measured at 2.28. Those items were indicated among the least frequency of students' choices. Cross-checking the observation and interview, only a few students positively joined class activities. Almost all of them were asked to express their ideas in class; therefore, they were so passive in raising their voices, although their opinions contrasted to others. Another possible explanation may be due to students getting distracted from the use of their own digital devices. Messages or notifications from social media networks might pause their concentration on class activities, which is consistent with Ho (2019), Pham (2020), and Van et al. (2021).

Conclusion and recommendations

This study looks at the impacts of digital methods in an EFL class at UNETI. From the analysis, students correspondingly used digital techniques at a high level in their learning English process, and so did the teacher who shared her perceptions through interviews. From classroom observation, using computers, laptops, smartphones, search engines like Google, Wikipedia, social networks, and messaging applications, students and teachers accessed many resources to serve for studying purposes. Using technology allowed students to learn English, and it also improved their involvement in-class activities. Learning networks provided an added incentive environment for learners. Students believe that digital methods are important for improving their English learning.

The researcher also believes that this study will have a huge impact on the pedagogical area of using technology in teaching and learning English. It seems instructors that are interested in the linked subject may use their teaching techniques to satisfy the curriculum and syllabus. Technological resources allow teachers to make adjustments. Experienced educators should use digital technologies to assist learners in acquiring new information, enhance their critical thinking, and engage them in collaborative activities. Secondly, universities should prioritize creating a student-centered learning environment that increases students' intellectual capacity and autonomy. As such, Vietnamese education, especially at the higher levels, is adopting technology-based teaching.

Besides, from the basis analyzed in this research, it is necessary to require more studies of digital approaches on diverse majors, such as English lecturers with various backgrounds and teaching styles. Thus, these findings may be supplemented by further researches, which includes additional parties and institutions. Furthermore, both language and content should be investigated to comprehend the use of technology in class better. Other testing or experimental tools may be added to discover the digital learning environment.

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Biodata

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