

**MINISTRY OF EDUCATION AND TRAINING
HUE UNIVERSITY
UNIVERSITY OF FOREIGN LANGUAGES**

VO THUY LINH

**EFL TEACHERS' AND STUDENTS' READINESS FOR M-LEARNING:
A MIXED-METHODS STUDY**

**DOCTOR OF PHILOSOPHY THESIS IN THEORY AND METHODOLOGY
OF ENGLISH LANGUAGE TEACHING**

HUE, 2022

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Supervisors:

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HUE, 2022

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STATEMENT OF AUTHORSHIP

I certify my authorship of the current thesis submitted today entitled: “**EFL Teachers’ and Students’ Readiness for M-Learning: A Mixed-Methods Study**” for the degree of Doctor of Education is the result of my own work. This work has not been submitted elsewhere for a higher degree at any other institution. To the best of my knowledge, the thesis contains no material previously published or written by other people except where the references are made in this thesis.

Author’s signature

Vo Thuy Linh

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ABSTRACT

This study aims to investigate EFL teachers' and students' perceptions of M-learning in English teaching and learning, as well as their readiness for the adoption of M-learning. The study adopted the theoretical framework of Technology Acceptance Model (TAM) and a mixed methods approach with the use of questionnaire, in-depth interview, and classroom observation to collect and analyze data.

The participants included 69 teachers and 300 students who were teaching and learning English as a foreign language (EFL) at a university in Vietnam. The analysis of quantitative data revealed that the majority of the participants had positive attitudes toward M-learning and that most of them had already owned appropriate mobile devices for teaching and learning English.

By adopting TAM, the current study explored the EFL teachers' and students' readiness through their perceived ease of use (PEU) and perceived usefulness (PU) or their claimed abilities, and manipulation of mobile devices in teaching and learning English. The questionnaire data indicated that EFL teachers had the ability to employ mobile devices in their classrooms and the capability of adopting M-learning into the lessons. In comparison, EFL students tended to have a firmer claimed ability to adopt M-learning with higher mean scores achieved. In the interviews, both groups expressed their confidence in manipulating mobile devices' functions for their English teaching and learning. Besides, the class observations revealed that both teachers and students were apparently confident in using mobile devices during English lessons, and that when any technical problems appeared, the teachers and students were able to rely on themselves to tackle the problems.

Another finding of the current study about readiness in perceived abilities revealed that the EFL teachers were in a position to adapt to the constant changes of mobile technology with their knowledge and experience of using mobile devices. Similarly, EFL students tended to regard mobile devices in their English learning as valuable instruments to help them with their study, contact, communication, and materials. In the interviews, both EFL teachers and students reported that they were well capable of adapting to the constant changes of mobile technology to serve their remote teaching and learning. From the findings of the study, further suggestions are put forward for the adoption of the mobile devices in English teaching and learning.

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LIST OF ABBREVIATIONS

CC	: Communicative Competence
CLT	: Communicative Language Teaching
EFL	: English as a Foreign Language
ESL	: English as a Second Language
E-learning	: Electronic learning
HMLRM	: Hypothesized Mobile Learning Readiness Model
ICT	: Information and Communication Technologies
IT	: Information technology
L1	: The first language
L2	: The second language
MALL	: Mobile Assisted Language Learning
M-learning	: Mobile learning
MMS	: Multimedia Messaging Service
MOET	: Ministry of Education and Training
NIC	: Network Interface Card
PDA	: Personal Digital Assistant
PU	: Perceived usefulness
PEOU	: Perceived Ease of Use
NFLP 2020	: National Foreign Language Project 2020
SLA	: Second language acquisition
SMS	: Short Message Service
SPSS	: Statistical Package for Social Sciences
TAM	: Technology Acceptance Model
UNESCO	: United Nations Educational Scientific and Cultural Organization
USDLA	: United States Distance Learning Association

CHAPTER ONE: INTRODUCTION

1.1. Rationale

English, as a lingua franca, has been globally used as a communicative tool in a variety of disciplines in the ever-globalizing economy. In Vietnam, the importance of English has also been emphasized, especially through the national project issued by the Ministry of Education and Training (MOET) which promulgates the 6-level foreign language competence framework for Vietnam (Circular, 2014) to enhance teachers' and learners' English proficiency. The national foreign language framework's general goal is that by the year 2020, a majority of Vietnamese youth who graduate from vocational schools, colleges and universities should attain the capacity to use a foreign language independently. This will enable them to be more confident in communication and further promote their opportunity to study and work in an integrated and multi-cultural environment with people from around the world. This goal also turns language learning into an advantage for the Vietnamese, serving the cause of industrialization and modernization for the country as a comprehensive solution for English communication in the socioeconomic era (MOET, 2008).

The Internet, nowadays, has its own important role in every aspect of education. With its ever-increasing speed, it has ushered in a revolution in the way humans connect to the online information database and look up information. As a result, many people's quality of life has increased exponentially. The rapid expansion of information sharing and communication interchange over the Internet over the last few decades has had a significant impact on how individuals in educational settings search for information to serve their teaching and learning. Anyone with a mobile device, such as a smartphone or tablet, can access information on the Internet at any time. Researchers from all over the world are rushing to investigate this phenomenon in order to add to the present body of knowledge in the field of mobile learning

In the current English education circumstance where remote learning is prevalent worldwide, techniques of constantly uploading and saving learning documents to an online database, as well as those of using smart and mobile devices for the purpose of teaching and learning should be utilized. In fact, the sharp development of wireless technology and mobile gadgets, such as smartphones, Ipods, tablets, laptops, and other

Chapter one: Introduction

devices, with lowering prices has significantly marked a major milestone in the world's innovation. Pollara (2011) underlines the importance of mobile phones as user-friendly technologies that people would never leave home without. As a result, under a Wi-Fi network, mobile devices can be used as useful instruments to promote English study anytime and anywhere. Indeed, mobile gadgets with a plethora of smart capabilities can make human life more convenient in terms of business, leisure, and communication. Furthermore, mobile phones are rapidly evolving in capabilities while lowering in price, resulting in the ubiquity of these portable utilities.

Because of their "handy and compact" character, mobile devices are now frequently used by practically everyone throughout the world (Iqbal & Bhatti, 2015). As a matter of fact, mobile phones are seen as compact and user-friendly technologies that are frequently accompanied by humans (Pollara, 2011). Thus, the capabilities of mobile phones are fast developing, resulting in a surge in ownership among the youth. Mobile phones have attached material data sources that serve human contact, information, and demands in both the offline and online environment, thanks to the improvement of both mobile devices' forms and functions. This has become the driving force behind researchers' efforts to come up with new methods put them into practical contexts like teaching and learning. It has also been proven that mobile devices can send and receive a vast amount of information over the internet, creating learning opportunities for learners of various levels (Trinh, 2014). Therefore, learning on mobile technologies can certainly meet the UNESCO organization's goal for education and training in the twenty-first century, which aims toward building a learning environment that is available anywhere, anytime, for a long duration, and diverse levels of learners. This is a viable goal as around 8.5 billion people worldwide have already had mobile phone subscriptions, accounting for roughly 92 percent of the world's population (International Telecommunication Union, 2015).

It is undeniable that technology has been integrated into many aspects of life as well as in education, "M-learning has become such an attractive trend that many researchers are willing to investigate its features and to examine its acceptance by learners and educators" (Al-Emran et al, 2018, p. 1). As a result, in recent years, its application has spread across the globe, especially in higher education settings.

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“However, studies into the driving factors of its adoption are insufficient” (Gómez-Ramirez et al., 2019, p. 141) and “the factors that influence students' attitudes towards mobile learning remain an intriguing topic” (Lin et al., 2020, p. 1). In the field of education, research has found empirical evidence that M-learning (otherwise known as Mobile learning) can support students in learning across many subjects (Liu & Carlsson., 2010). Due to the emergence of M-learning and the necessity to explore its feasibility in education, there has risen the need to explore its acceptance in educational contexts (Althunibat, 2015; Laurillard, 2007; Al-Emran et al., 2018). M-learning has become popular in several nations owing to its convenience. However, as M-learning requires sufficient mobile devices connecting to a rather stable wireless network, this learning model is still in its infancy in Vietnam. In Vietnamese institutions, conducting remote classes via online platforms using mobile devices has still not become prevalent despite its convenience. On this ground, the current study was set out to explore the adoption of M-learning in an EFL context.

Given the emergence of the need to utilize M-learning for its convenience and flexibility in the world today and to further investigate an under-explored topic in Vietnam, this study was set out to study EFL teachers' and students' readiness for M-learning with the goal of determining their perceptions, attitudes, and readiness for employing mobile devices to teach and learn English. It also aims to find out how willing they are to recommend the use of M-learning to assist Vietnamese teachers and learners in their English classes. By seeking to understand the factors that influence the acceptance of M-learning in an EFL context, the researcher will hopefully assist the M-learning researchers in planning forward to investigating the effects of other factors to enhance the effectiveness of teaching and learning in the digital era.

1.2. Research objectives

The main objectives of this thesis are to investigate the perceptions including attitudes and behaviors of EFL teachers and students at a university in Vietnam towards the use of mobile devices and wireless technologies in teaching and learning English and to examine their readiness in employing M-learning in their classes. It also aims at exploring EFL teachers' and students' abilities to adopt up-to-date mobile technology in English instructing and studying. Finally, the thesis hopes to provide practical implications for the use of M-learning in English classrooms.

1.3. Research questions

The study seeks answers to the following four research questions

1. What are university EFL teachers' perceptions of M-learning in English teaching and learning?
2. What are university EFL students' perceptions of M-learning in English teaching and learning?
3. To what extent are university EFL teachers ready in perceived abilities to use M-learning in English teaching?
4. To what extent are university EFL students ready in perceived abilities to use M-learning in English learning?

1.4. Significance of the study

Theoretically, this study is expected to draw a number of contributions from the adoption of the Technology Acceptance Model (hereafter abbreviated to TAM) to shed light on the use of M-learning in the EFL context.

Practically, the findings of the study provide empirical evidence of the teachers' and students' perceptions of M-learning and their readiness to employ M-learning in English teaching and learning. The implications from these findings contribute to the integration of technology into educational settings in general, and in the EFL context in particular. Besides, a study on the use of M-learning in language teaching and learning also contributes to find ways to better online language education during the pandemic time.

1.5. Scope of the study

The M-learning model has been used in teaching and learning all around the world. Certainly, the research domains and issues for M-learning are quite broad and extensive, this study however delves into the issues of perceptions of teachers and students of M-learning in general. It will also take a deeper look into their readiness in abilities and intentions in adopting mobile devices in teaching and learning English.

1.6. Thesis organization

The current thesis is divided into five chapters. The first of which provides an overview of the thesis, including the research rationale, research objectives and questions, research significance and scope. Chapter two goes into detail to analyze the

Chapter one: Introduction

M-learning theoretical foundation, EFL teachers' and learners' readiness, Technology Acceptance Model (TAM), and the review of the previous research to identify the gaps for the current study. Research methodology is covered in Chapter three with sections on research design, research methodology, research setting, participants, data collection and analysis, reliability and validity, and research ethics. In Chapter four, the study findings are presented and discussed. Finally, chapter five summarizes the important findings, contributions from the thesis, recommendations from the thesis, implications for future study, and limitations of the current thesis.

CHAPTER TWO: LITERATURE REVIEW

This chapter examines the literature on M-learning and its applications in the teaching and learning of English. First, definitions of key terms will be discussed to provide the context for the study. Second, the chapter focuses on justifying the adoption of the Technology Acceptance Model (TAM) as the theoretical framework for the current study. Last, a number of related previous studies will also be reviewed to justify the gaps in the current study in terms of the underlying theory as well as the research design.

2.1. An Overview of M-Learning

2.1.1. Definitions of M-Learning

M-learning has progressed at such a breakneck pace that it has surpassed the expectations of many information and communication technology (ICT) specialists. In fact, the word "M-learning" has been defined in a variety of ways by various authors. M-learning, according to Quinn (2000), is the process of a person learning something while utilizing mobile computational devices such as Palms, Windows CE PCs, and even his digital cell phone. Sharples (2006), who has a similar viewpoint, defines mobile learning as the use of mobile technologies in study. M-learning can also be defined as "any kind of learning that occurs when the learner is not at a fixed, predetermined place, or learning that occurs when the learner takes advantage of the learning opportunities afforded by mobile technologies" (O'Malley et al., 2003, p. 6). Cell phones, smart phones, palmtops, and handheld computers are all exemplary examples of mobile learning devices; tablet PCs, laptops, and portable media players can also be included in this category (Kukulka-Hulme & Traxler, 2005).

Nonetheless, according to Walker (2006), M-learning has been widely used as a new learning strategy in many different scenarios using portable equipment. Although the definitions may differ in terms of phrasing, all of them, on the surface, appear to allude to the mobility of learners when using mobile technology for learning. As a result, this study will be guided by the idea of its modernity and applicability, as well as its alignment with the objectives of my research.

Other definitions of M-learning include several essential characteristics such as learners' mobility, mobile device applications, and the link between M-learning and E-

Chapter two: Literature Review

learning. While some authors are concerned with electronic technology or technical mobility, others are concerned with the device size (Traxler, 2009). M-learning, according to Sharples (2006), is determined by the context in which it is utilized, the users' experiences, the uses, and their backgrounds.

Trinh (2014, p. 23) defines M-learning as “learning, training, content management, sharing, and interaction performed through the use of mobile devices on the wireless network technology” in order to offer theoretical results of M-learning. This is the definition used throughout this study, in which the learner is positioned in the center and uses a mobile phone to maneuver his or her own learning within learning events. This concept is appropriate for this study because the students' use of their personal mobile phones is important to the learning activities.

From all of the above-mentioned definitions of M-learning, it can be concluded that M-learning is a learning model that allows students to remotely approach their lessons with numerous levels and a large number of study materials via mobile devices at any time. The following model depicts a mobile learning application that has been explored in numerous studies:

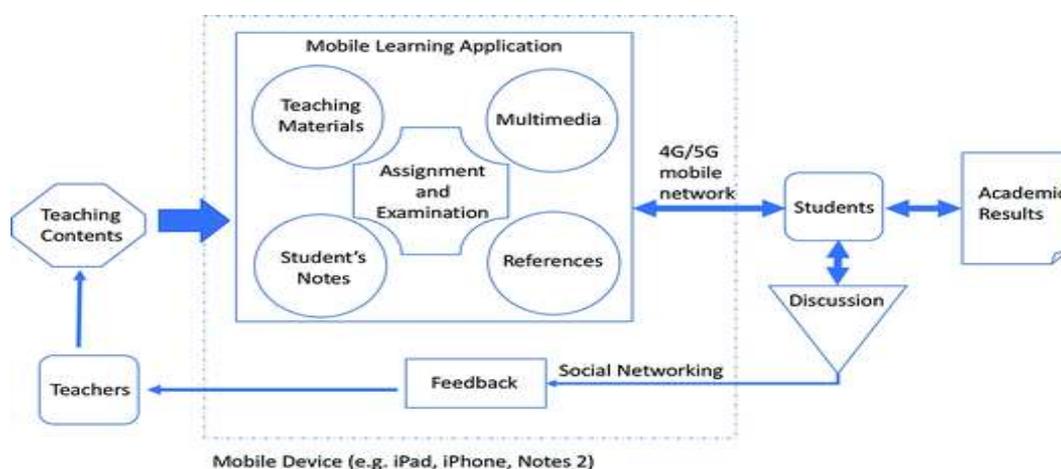


Figure 2.1. A Model of Mobile Learning Application (Zhong et al., 2018)

This thesis is conducted to have a more profound look into the teachers' and students' perceptions of the M-learning model and determine how well they are prepared for the use of M-learning in the English classroom. M-learning in this study is defined as a model of learning English via mobile devices which allows students to approach lessons with numerous levels and a large number of study materials at any time.

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2.1.2. *M-learning*

M-learning, according to Kukulska-Hulme and Traxler (2007), can be divided into several categories, including technology-driven mobile learning, portable E-learning, connected classroom learning, informal, personalized, situated mobile learning, mobile training, performance support, remote, rural, or development mobile learning, inclusion, assistant, diversity, and large-scale implementation. M-learning falls into a variety of categories, all of which provide several benefits in terms of supporting teaching and learning in general, and in terms of teaching and learning English in particular. Three main types of foundational electronic teaching and learning platforms leading to M-learning and their interrelationship are discussed below.

2.1.2.1. *E-learning*

In the 4.0 technological revolution, M-learning, which is based on the model of E-learning, has evidently become a tremendous breakthrough in education. Thanks to the development of the wireless network, the model can now be extensively utilized at all times in every part of the world. Since its inception, E-learning has been a major support to humans in a variety of domains of work and study. These two models of learning, despite having been created during the golden age of contemporary technology, have very distinct characteristics in the way they perform and interact with the online network. The conversion from E-learning to M-learning is classified as a revolution by Laouris and Laouri (2006) because it entails a shift in attitude when developing and organizing learning settings and goals, as well as a change in vocabulary. The two models are distinguished as follows:

Table 2.1: Differences between E-learning and M-learning

E-learning	M-learning
Computer	Mobile
Bandwidth	GPRS, G3, Bluetooth
Multimedia	Objects
Interactive	Spontaneous
Hyperlinked	Connected
Collaborative	Networked
Media-rich	Lightweight

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Distance learning	Situated learning
More formal	Informal
Simulated situation	Realistic situation
Hyper learning	in addition to asynchronous communication Constructivism, situationism, and collaborative

Source: Laouris and Eteokleous (2005)

There exist some common features in both the learning process and the teaching process between the two remote learning models. First of all, M-learning and E-learning are formed for the student-centered teaching/learning process. Both of them use technological devices for teaching and learning such as PDA, wireless laptops and notebooks (Ozuorcun & Tabak, 2012; 302). In 2005, Keegan visually differentiated E- and M-Learning with the two models of ‘Today’ and ‘Tomorrow’, respectively (see figure 2.2).

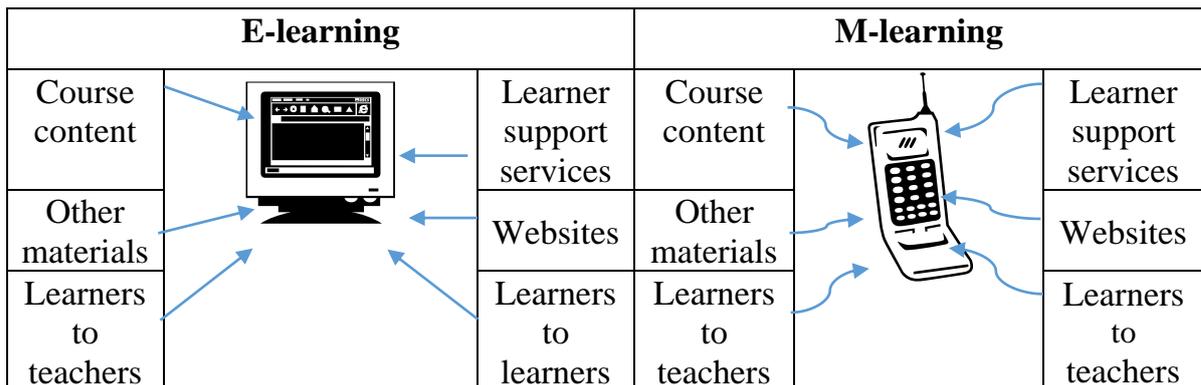


Figure 2.2. The Wireless Virtual Learning Environment of ‘Today’ (Keegan, 2005)

Both models demonstrate identical functions, including course content and student support services; however, each model displays these aspects of the wireless learning environment with their unique manifestations. While a tethered technique is used in the instance of E-Learning, the same operations are carried out in an entirely wireless setting in M-Learning. The researcher summarizes the differences between E-learning and M-learning in teacher-student contact (Eltayeb, 2014, p. 23) as follows:

2.1.2.2. D-Learning

D-Learning is a general term used to cover the broad range of teaching and learning events in which the students are separated (at a distance) from the teachers or other fellow students (Hoyle, 2007). This model of learning includes the acquisition of

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knowledge and skills through mediated information and instruction, encompassing all technologies and other forms of learning at a distance (USDLA, 2016).

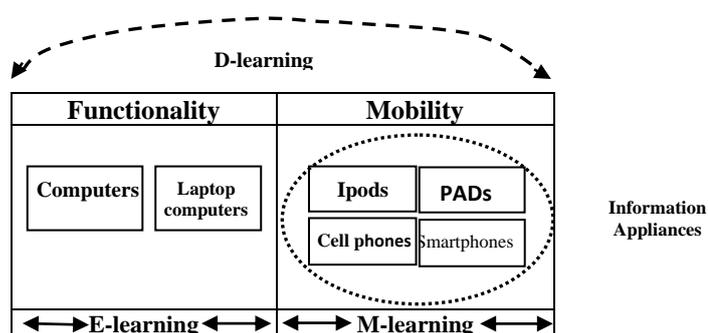


Figure 2.3. Relationships between D- Learning, E- Learning, and M-Learning (Thurmond & Wambach, 2004)

Kulkulka-Hulme and Traxler (2007) distinguished M-Learning from D-Learning and E-Learning via the vision. D-learning also addresses the generalizability of out-of-classroom learning by focusing on what M-Learning is capable of. Essentially, M-Learning enables the possibilities opened up by portable, lightweight devices that are sometimes small enough to fit in a pocket or in the palm of one's hand. Typical examples of these devices include smartphones, palmtops, handheld computers, tablets; other devices like PCs, laptops and personal media players can also fall within its scope (Traxler, 2007). Another factor differentiating M-Learning and E-Learning from D-Learning is the functionality of M- and D-Learning. Both M- and D-Learning calls for the use of both electronically asynchronous (or non-simultaneous interaction) and synchronous (i.e., text messaging, virtual chat rooms, etc. that facilitate simultaneous communications) environments. Kulkulka-Hulme and Traxler (2007) also emphasize that this is in contrast to the one-way dialog typically associated with D-Learning (i.e., mail, television, fax, etc.).

2.1.2.3. Face to face learning (FTF learning)

According to Quest (2016a), FTF-learning has taken on many forms; prior instructors were often with small learner/instructor ratios to teach small-size classes. Today, these instructors still fill the teaching role, as do faculty in formal classrooms comprising both small and large student/teacher ratios. In addition, Quest (2016b) emphasizes FTF in the form of 'training' is conducted on job sites, at organizations, and in homes, etc. Thus, FTF is the foundation of other learning models including D-

E-, and M-Learning (see Figure 2.4).

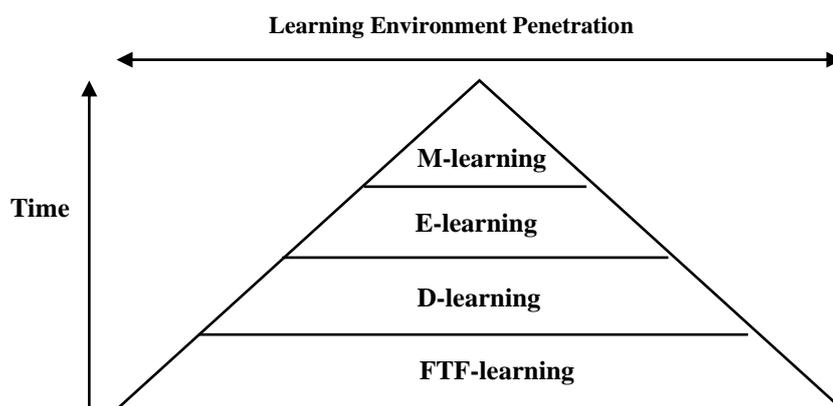


Figure 2.4. A Hierarchy of learning methodologies (Williams, 2009, p.30)

Based on the distinctions between D-learning, E-learning, FTF-learning, and M-learning in the tables above, mobile devices appear to be the pinnacle of technology 4.0, providing usefulness and convenience for human life. Mobile learning, in particular, is thought to be a well-supported instrument in education around the world; thus, M-learning will be examined in depth in the current study. Another factor that cannot be overlooked is M-learning research; the benefits of M-learning will be discussed in detail in the following section.

2.1.3. Benefits of M-learning

M-learning has introduced significant advantages and prospective benefits to the user community, particularly students, thanks to the usage of current technology. In fact, the advantages of this learning strategy for learners' learning are enormous. It can assist students in approaching their lessons and studying whatever they choose using a variety of material resources at any time and from anywhere. As a result, according to Khan et al. (2015), M-learning has become a useful tool for modern education, in foreign language training particularly, with some of its advantages including (1) cost, (2) persistent connectivity and synchronized content, (3) supports social inclusion and community building, (4) supports personalized, lifelong, and informal learning, (5) convenience of temporal and spatial limitations, and (6) convenience of a personal and secure environment.

Mobile devices have clearly evolved into multimedia access tools, connectivity tools, capture tools, representation and analysis tools, with benefits for foreign

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language teaching and learning that include supporting students' motivation, encouraging their sense of responsibility, improving their commitment, and promoting their English learning and retention. According to Pollara (2011), using photographs, music, and video recording, it is possible to take fast notes.

The appearance of mobile technology has offered significant help for humans in a variety of professions. It makes a significant contribution to the reach of distance learning in education. However, in remote learning, mobile learning is unlikely to totally replace classroom teaching (Ting, 2005) or computers. In mobile devices, which are covered later in this chapter, laptops make technical and usability hurdles vanish. Furthermore, M-learning provides students with additional and consistent learning support, access flexibility, a wider communication channel, and fewer space and time limitations (Abernathy, 2001; fewer space and time restrictions) (McConatha et al., 2008; Ting, 2005; Jacob & Issac, 2007). M-learning is seen as a technique to contribute to learning, according to Stead (2005). This author suggests that the combination of mobile technology with traditional learning can produce successful results in teaching and learning. M-learning has a number of advantages, including the ability to support teachers' and students' teaching and learning by providing a wealth of learning resources at various levels. Additionally, M-learning has a place in education, particularly in the teaching and learning of English; hand-held devices are easy to carry and learn directly at any time and in any location in a wireless environment.

Furthermore, the benefits of M-learning have been claimed in EFL. For example, Pham et al. (2021) point out,

Mobile devices with many functions can be an effective tool to support learning. Furthermore, learners nowadays, who were born in the 4.0 movement, are more familiar with mobile devices than notebooks. They spend much time on their mobile phones interacting on social media and playing mobile games. Hence, if educators can integrate those interests into traditional lesson plans, added value would appear for learners' academic performance and learner autonomy. (p. 66)

2.1.4. Drawbacks of M-learning

Apart from the aforementioned advantages of M-learning in general education, Naismith et al. (2004) recognized additional obstacles in teaching and learning, as follows (1) Mobility: mobile learning provides anywhere, anytime access to learning

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activities, both within and outside the classroom. This puts traditional teaching methods to the test; (2) Informality: Mobile learning supports informal learning. If mobile learning becomes too popular, it may lose its benefits. (3) Ownership: Mobile devices provide personal access and ownership, which can be used to facilitate individual and group learning. Personal ownership is vital for commitment and involvement, but it can be difficult to govern institutionally. (4) Learning across time: offering effective tools for lifelong learners to reflect on their mobile learning experience is a difficulty with mobile devices. In reality, many of the traits that have led to the widespread use of mobile devices are also seen as possible limitations by some academics. Mobile gadgets, for example, are tiny enough to allow for mobility and portability, allowing for learning at any time and from any location.

Researchers are concerned, however, that the screen size of mobile devices may have an impact on learning. Although there is little research on the relationship between screen size and learning, Manair et al. (2008) discovered that learners acquire much more when the screen size is greater than 58mm (2.28 in.) diagonal. Furthermore, the differences in students' perceptions of M-learning when using different screen sizes. To respond, the students express dissatisfaction with the M-learning service due to small screens, limited access to web-based resources, and slow downloading. Web pages are not often designed with small screens in mind (Bryan, 2004; Lawrence et al., 2008).

As a result, if M-learning is used inappropriately, it might be harmful to learners. Furthermore, learning with mobile devices will establish a technology learning habit, which will progressively become weird with and ultimately contradict traditional teaching techniques. Since then, the use of mobile devices to support learning, in general, has gotten much attention from both instructors and students.

2.1.5. Mobile technology in English teaching and learning

Mobile technologies have grown prevalent in human life without time or space limits as a result of their numerous features. Evidently, they have also become valuable and outstanding inventions in the field of education, especially in English teaching and learning, around the world as part of the 4.0 technological revolution. In scaffold-learning, Chen et al. (2002) recognize special qualities of mobile technology that provide benefits not available through other distance learning technologies. Providing mobile academic content and information in order to comprehend these

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characteristics, which is a crucial sector in the study's findings. According to Pollara (2011), many people, such as community college librarians, instructors, administrators, and staff, might benefit from this understanding since it explains why students might desire to add mobile access to academic information. He adds that mobile learning emphasizes the importance of individual data collecting and English education demands. Besides, the initiative of knowledge collecting is grounded in the requirements of the formation finder, and the information is immediately available for users to approach diversified material resources for English multi-level teaching and learning. Third, a mobile English teaching and learning environment allows for knowledge gathering and learning to take place when and when it is most convenient for educational individual needs. Fourth, wireless gadgets made the English teaching and learning process more interactive. Educational users and information seekers have more access to professionals (e.g., librarians, instructors, and others) and expertise than is possible with traditional distant learning technology. Fifth, activities are positioned in educational activities in such a way that they broaden English education and information gathering into natural and contextual situations in a person's real life (Juniu, 2006; Sharples et al., 2002). Finally, English teaching and learning content (such as knowledge resources, activities, and so on) is wirelessly integrated into mobile device use, which enables English instructors' teaching and learners' learning whenever and wherever.

M-learning is educational interaction offered with mobile technology, which is one of the latest technologies for creating and disseminating the English educational process. It is not limited to mobile applications that are especially created for teaching and learning English purposes, such as maps, geological maps, data access, self-learning tools, and so on. As a result, by introducing the benefits of these technologies to the educational areas, mobile learning will update learning systems and provide additional benefits for English educational environments.

Related to the use mobile technology in English teaching and learning, it should be mentioned mobile assisted language learning (MALL) which has become a current issue as a result of the wave of mobile technology, prompting researchers to do studies (e.g. Saidouni & Bahloul, 2016; Chen et al., 2016). For example, teachers and

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students' attitudes toward adopting mobile-assisted language learning (MALL) in higher education were surveyed by Saidouni and Bahloul (2016). Both teachers and students had positive perceptions toward MALL as revealed in the questionnaire data. In another study, Saidouni et al. (2019) used MALL to assist students improve their language learning and enhance their learning autonomy anytime and anywhere; the data demonstrated that using flashcards on mobile phones was more effective than on paper in improving learners' vocabulary acquisition. The qualitative approach was used to interpret the effectiveness of mobile phones on students' self-conscious acquirement without applying mixed-methods to collect data in the current thesis. Chen et al. (2016) used piloted and refined questionnaires to study 52 EFL teachers and 319 EFL students' perceptions and acceptance of M-learning. The findings revealed that most participants had a positive opinion and high level of acceptance on M-learning. The younger the teachers are, the more positive their agreement of it is as a pedagogical obligation. Certainly, familiar persuasive foundation is established to guide the survey in Taiwan, yet the mixed-methods are not used to analyze both qualitative and quantitative instruments in Vietnam as in the current thesis.

In short, M-learning has a place in education, particularly in the teaching and learning of English. With widespread ownership of mobile and wireless devices such as iPhones, iPads, and tablets, M-learning may be implemented by teachers and learners at any time and in any location. As a result, M-learning enables learners to be more engaged in learning resources and activities. While some have argued that learning with information technology (IT) entails using any portable devices such as cassette players, DVD players, televisions, and portable LCD projectors, mobile learning refers to more recent technologies that entail teaching and learning on mobile devices such as smart phones, laptops, and tablets. M-learning is typically described by two key characteristics: it allows teaching and learning to take place at any time and it primarily employs handheld or palmtop devices. Mobile devices provide a dynamic environment for teachers and students to approach their English teaching and learning, based on the typical characteristics evaluated usefulness forward English teaching and learning. These concepts can be used as a starting point for additional research into teaching and mobile technology.

2.1.6. *EFL teachers and learners*

Teachers who teach English in countries where English is not the national language or second language are known as EFL teachers. EFL teachers, according to Nordquist (2015), are having difficulty coming up with methodologies and supporting English models for their students because more classrooms and schools are rapidly becoming more like EFL environments rather than ESL environments.

EFL is an abbreviation for English as a Foreign Language, and thus EFL learners refer to students whose primary language is not English, for example, a Korean, for example, is learning English in Korea (Nordquist, 2015). EFL is typically learned in environments where English is not the primary language of the community or the school (Gunderson et al., 2009). Furthermore, according to Oleg (2000), EFL students, unlike ESL students, exclusively interact with English in the classroom and rarely outside of it. In EFL situations, lesson hours are inevitably constrained. Because there are so many other courses to study at school or university, English sessions can only be held two or three times a week.

In the following, certain theories linked to M-learning research are discussed. They are undoubtedly valuable and trustworthy, based on the findings of prior specialists. They are presented in a logical and sequential way.

2.2. Readiness

According to Melese (1998, p. 1), readiness is defined as the relationship between effective preparedness and efficient relief. Preparedness is deduced from preparation, the ability to respond quickly, and a willing attitude. Furthermore, Conley (2007) proposes a new definition of preparedness that incorporates cognitive methods, content knowledge acquisition, academic practices, and contextual knowledge and abilities. Besides, readiness is also determined by how educators view mobile technology as a new tool for learning and teaching (Zulkafly et al., 2011).

In this study, readiness is generally seen as perceptions and views including users' attitudes, acceptance of using mobile technology and their willingness to use or carry out a sequence of actions for instructing and learning English through wireless portable technology. Readiness in this sense embraces attitude as defined by Melese (1998), and willingness and view as stated by Zulkafly et al. (2011). In other words,

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the term readiness is utilized in the current study to define EFL teachers' and students' perceptions and willingness of teaching and learning English through mobile devices. It also means acceptance and willingness to adopt and carry out English mobile learning implementation. To some extent, perception and readiness were used interchangeably in this thesis when the aim was to explore teachers' and students' views and attitudes toward M-learning.

2.2.1. Mobile technology readiness

Mobile learning readiness can be characterized as users' ability to select and use mobile technology such as tablets or phones as one of their learning tools (Padmanathan & Jogulu, 2018). M-learning readiness also identifies several factors that influence M-learning readiness, such as educational level (Nwagwu, 2001), gender (Trifonova et al., 2006), and age (MacCallum & Jeffrey, 2009). Other elements that influence M-learning implementation include technology feasibility, student needs, and pedagogical benefits, according to further research (Cheung et al., 2011; Alzaza & Yaakub, 2011).

According to Maniar et al. (2008), Fozdar and Kumar (2007), Alzaza and Yaakub (2011), Attewell (2005), readiness in M-learning studies centers on how learners perceived mobiles as an effective way to communicate, collaborate, and learn. It also explores whether learners are enthusiastic and look forward to the integration of M-learning in their learning process, and whether learners have the required skills. Teachers, like students, must be ready for M-learning in order to convey knowledge in a pedagogical manner.

As mentioned earlier, related to readiness in M-learning should focus on teachers' M-learning preparedness in terms of their level of technical knowledge, awareness, and motivation. For example, Alzaza (2012) and Mahamad et al. (2010). Furthermore, Ismail et al. (2013) discovered that teachers had a low degree of M-learning readiness; however, Mahat et al. (2012) observed that trainee teachers have a high degree of readiness. Mobile phones serve to expand access to knowledge regardless of location, according to perception studies on learners' attitudes toward M-learning (Valk et al., 2010, Gikas & Grant, 2013). M-learning also inspires students and enhances the learning environment by making learning more effective and

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enjoyable (Jacob & Isaac, 2008; Nordin et al., 2010). M-learning allows students to practice what they are learned in class. It also serves as a venue for informal collaboration and communication among students (Looi et al., 2010).

2.2.2. Readiness of teachers and students for M-learning

This section presents some factors connected to preparedness that will be examined first in order to measure teachers' and students' readiness for adopting mobile technology in English learning. Educators play a critical role in using mobile technologies to promote high-quality education (Attawel, 2005; Daniel, 2008; Ferry, 2009). Ferry (2009) claimed that teachers need to develop a unique and inventive combination of skills and knowledge in order to implement this technology in their classrooms. As a result, the cognition and consideration of teachers and students must be explored as the first and most significant phase before conducting application studies. There are some factors connected to preparedness and teachers' and students' readiness for adopting mobile technology in English learning. Yusofa et al. (2011) defined readiness for adopting and implementing mobile learning as instructors' willingness and preparedness to use new and mobile technology in the classroom. In other words, instructors' attitude toward English M-learning or the willingness and preparedness of the teachers are considered to be a major success component. Because they have power over the instructors' attitude toward English M-learning, they regard the willingness and preparedness of the teachers as a major success component.

This following section presents key factors in users' readiness for M-learning.

2.2.2.1. Attitudes to use mobile technology in English teaching and learning

Attitudes towards M-learning have also been explored. For example, Wise (1985) and Auzmedi (1991; 1992) measured technology users' attitudes from an affective and cognitive point of view. Later, Eagly and Chaiken (1998) and Van den Berg et al. (2005) introduced "attitudes" with three basic components: cognitive, affective, and behavioral. The cognitive component refers to an individual's belief about the attitudinal object. Fishbein and Ajzen (1975) claimed that attitude is seen as a person's belief. Similarly, Pham (2020) added the affective component of attitudes which refers to the emotional responses (liking/disliking) towards an attitude object. The users' attitudes towards using mobile technology consist of their actions or

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observable responses' verbal or nonverbal behavioral tendency to the use of portable devices. According to Pham (2020), attitudes involve teachers' and students' favorable or unfavorable behavior regarding English teaching and learning via mobile devices. The attitudes towards mobile technology herewith refer to users' mental process of perception, conception and beliefs, the emotions: trust, distrust, like, dislike about engaging handy technology in English teaching and learning.

2.2.2.2. Willingness to use mobile technology in English teaching and learning

Brown et al. (2014) believed willingness engaged in technology is an assertive effort to adapt to the changing expectations of learners in the classroom-learning environment. Technology is increasingly being brought into the classroom; willingness refers primarily to learner-driven behaviors, typically via smartphones (Woodcock et al., 2012). In addition, Liburd and Christensen (2013) suggest in technology, particularly web 2.0, willingness can help increase the depth of learning by increasing interaction, critical thinking, and collaboration. Moreover, the willingness is reviewed to gain more insight into the use of technology, and more specifically, the use of student response and engagement systems in the class (Brown et al., 2010). The examination of how users are willing to use mobile devices led to increased users' engagement and participation (Jones et al., 2013). It is to define how EFL teachers and students are willing to use mobile technology in EFL education. In other words, willingness to use is described by behavioral intention or action, behavior that demonstrates the future tendency to teach and learn English on their mobile devices.

2.2.2.3. Acceptance to use mobile technology in English teaching and learning

Pham (2020) claims acceptance to use technology as users' perceptions about the difficulty they face in using mobile devices for English education. Recently, technology acceptance research is directed at large-scale technologies and infrastructure systems of different technology fields Dohle et al. (2010). In this context, technology acceptance is predominately related to persons' risk perceptions (Kasperson et al., 1988). Characteristically, risk perceptions are a complex combination of perceived benefits, perceived barriers, and the perceived threats brought by technology interwoven with the individual bias for refusal or resistance (Zaubrecher et al., 2014). Meanwhile, recent research considerably augmented the

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knowledge about technology acceptance in large-scale technologies; so far it is still insufficiently understood how far risk perception and technology acceptance of infrastructure technologies are impacted by individual characteristics such as technical self-confidence. This study is an empirical approach to exploring the influence of technical self-efficacy on approval, discomfort, and resistance towards technology infrastructure, and mobile devices. Accordingly, users' acceptance of M-learning deals with their positive perceptions such as agreement, appreciation of the usefulness and ease of use when employing mobile devices to teach and learn English is investigated.

With the research's aims to investigate users' readiness for M-learning, the main aspects relevant to the topics of readiness, including attitudes, willingness, and acceptance were reviewed. Nonetheless, by tapping into the previously mentioned aspects, the researcher can define how EFL teachers and learners are ready to use mobile technology in their English teaching and learning. In other words, the current study will explore the following four key factors to examine instructors' and learners' readiness for mobile teaching and learning: (1) attitudes to use, (2) manipulation, (3) perceived usefulness (4) and willingness to adapt mobile technology in English education. More specifically, the emphasis of this study is on readiness, more specifically, teachers' and students' attitudes toward utilizing mobile technology to teach and learn English, what they think about M-learning in their teaching and learning languages in general; and, most importantly, whether they are ready to accept this new learning strategy in the era of technology 4.0.

Furthermore, the study aims to explore how EFL teachers and students use mobile devices to help them learn English, as well as how they think about how much money they should spend on mobile English learning. Following that, users' acceptance of M-learning was investigated based on their use of mobile devices and willingness to pay for M-learning. To put it in another way, users' attitudes and capacities to manipulate mobile technology, as well as the perceived usefulness of technology in learning English were explored.

2.2.3. Continuous changes in mobile technology

There have been improvements in hand tools over the last few decades, but the essence of the job has remained mostly unaffected by the technological revolution that

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has pervaded so many industries until recently (Biggs, 2020). This has allowed for faster and more efficient decision-making, such as receiving and preparing modification orders or any other information sent from the office to field personnel.

Technological advancements have been referred to as the built-in alterations of the high-tech revolution, as well as mobile devices. According to Churi et al. (2012), 1G was first offered in the early 1980s as a voice-only communication system through "brick phones." Short Message Service (SMS) and Multimedia Messaging Service (MMS) capabilities were introduced with the introduction of 2G in 1991, allowing picture messages to be transmitted and received between phones. 3G was introduced to provide higher data transmission speeds for video calling and internet access. In 2008, 4G was introduced with more demanding services such as gaming, HD mobile TV, video conferencing, and 3D television and it performed around 10 times quicker than 3G. In fact, 5G technology is expected to be available in the near future. High data rates, low latency, energy savings, lower costs, increased system capacity, and large-scale device connectivity are all goals of 5G networking, with data transmission rates up to 10 Gbits, which is 100 times faster than the current wired Internet and 100 times faster than the previous 4G LTE cellular network. Another benefit is decreased network latency (faster response time), which is less than 1 millisecond compared to 30-70 milliseconds for 4G. To meet the high data volume of high-definition video, virtual reality, and other applications, the peak rate must reach the Gbits standard. Besides, the air interface delay level must be around 1ms, which meets real-time applications such as autonomous driving and telemedicine. Lastly, a large network capacity must provide the connection capacity of 100 billion devices to meet IoT applications.

Mobile technology changes have also led to adjustments in mobile devices' functions which have become free of the shackles of bezels thanks to wireless technology, allowing the screen to be more open. Users can cram a larger screen into a smaller gadget or use one-handed operability. However, there might be technological issues, such as light leaking on the screen, unintentional touch on the edges, and more fragile bare panels, which have all hampered its widespread adoption. As a result, the current study focused on investigating capacities to use modern mobile devices'

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understandable changes.

In general, this research focused on teachers' and students' readiness for M-learning in terms of technology availability and capability, attitudes, acceptance and willingness to use mobile devices. To meet the research goals, it is critical to synthesize the theoretical underpinning of instructor and learner ready.

2.3. Technology Acceptance Model (TAM) as the theoretical framework in the current study

The Technology Acceptance Model (TAM) was developed by Davis (1986) to propose two constructs, perceived usefulness (PU) and perceived ease of use (PEOU) to be included among the set of the perceived characteristics of innovations through which we can capture all relevant beliefs in information technology (IT) usage contexts (Benbasat & Barki, 2007). The key constructs of TAM are that behavioral intention has a direct relationship with the actual use. An individual's attitudes can determine his/her intention to use, which would be determined by the usefulness and the ease of use as perceived by the individual. The following diagram illustrates the constructs of TAM:

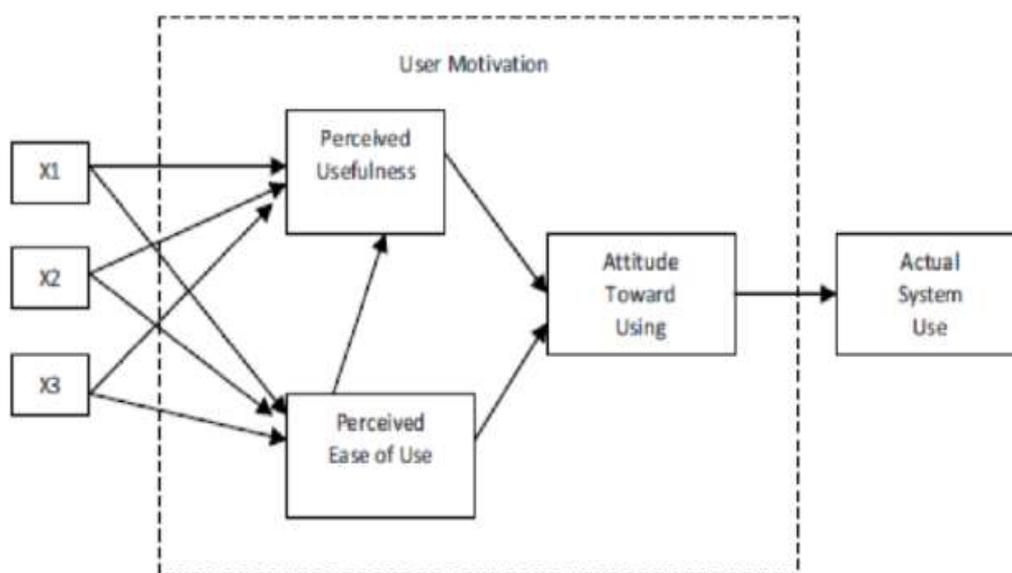


Figure 2.5. Technology Acceptance Model (TAM) (Davis, 1986)

TAM, according to Van Raaij and Schepers (2008), is a broad theory among numerous theories in the information system literature for explaining people's acceptance of technology. According to Venkatesh and Davis (1996), when users are ready to launch a new software package, TAM can advise them that a variety of

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factors impact their choices for both the procedure and the time spent using it. Furthermore, Bagozzi et al. (1992) claim that if an individual forms an intention to act, TAM can predict that he or she will be free to act without constraint; however, many limitations still exist in the real world, such as limited abilities, time constraints, organizational or environmental constraints, or unconscious habits, which limit the freedom to act.

According to Benbasat and Barki (2007), perceived usefulness (PU) is a very influential belief and that perceived ease of use (PEOU) is an antecedent of PU and an important determinant of use in its own right. Expressed in another way, “PU is the notion of a person that technology has benefits. For instance, it can enhance his/her proficiency while PEOU is a person’s notion of how easy it is to use technology” (Akmal, 2017, p. 29). Lee and Lee (2008) defined usefulness as the user’s belief that the technology will improve their learning performance. This indicates that the more students perceived useful, the higher their learning performance was.

TAM has been used in research for adaptability, simplicity, and soundness of TAM (King & He, 2006) and has become one of the most commonly used models for measuring the M-learning acceptance so far (Al-Emran et al., 2018). Besides, “The theory of technology acceptance model (TAM) has been shown to be valid and powerful models in the research on the adoption of learning technologies” (Gómez-Ramirez et al., 2019, p. 141).

TAM has been adopted in several studies. For example, the study by Lin et al. (2020) was to investigate the adoption of new technologies and to highlight the design problems for M-learning improvement. It is considered to be a good design or improvement that can help individuals increase interests in M-learning. Napitupulu et al. (2017) tested if the TAM measurement indicators are valid and can represent each dimension of the model under quantitative method to explore perceived usefulness, perceived ease of use and behavioral intention to represent each dimension of TAM and claimed that the TAM model is still relevant used to measure the user acceptance of technology.

In the context of EFL, TAM has been adopted to explore whether learning performance has positive relationships with perceived usefulness of online technology

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(Akmal, 2017). This author pointed out that the more students demonstrated their acceptance of on-line learning to be used for studying English, the higher their language ability was. Pollara (2011) adopted TAM to investigate the faculties' and learners' perceptions regarding the impact of using mobile devices in learning English inside and outside using the constructs of PU and POEU of TAM. Nah et al. (2008) delved into one specific aspect of EFL: listening and based on TAM to explore learners' attitudes of using the WAP site to develop listening skills and their motivation to participate. Another study adopting TAM was carried out by Dashti and Aldashti (2015) who used TAM to design questionnaire surveying EFL teachers' and students' attitudes towards English learning through cell phones.

Davis (1989) defines PEOU as "the degree to which a person believes that adopting a specific system would be free of effort," according to him. In reality, TAM's significant figure research shows that perceived usefulness is a strong determinant in consumer acceptance, adoption, and practice behavior (Venkatesh et al., 2003). In terms of acceptance, professional users may differ from other technology users (Patrick & Paul, 2002). Furthermore, Davis (1989) claims that the intermediating factors of attitude and intention are used to measure the utility and convenience of use of IT systems.

TAM has been interpreted into TAM 2 (Venkatesh & Davis, 2000) which is basically based on the validity of the original model and also underlines other factors that may impact the user's behavior. However, it highlights the concept of subjective norm, which refers to a person's perceptions of how others think he/she should or should not perform the behavior (Zhang & Pérez-Paredes, 2019). The diagram of TAM 2 is as follows:

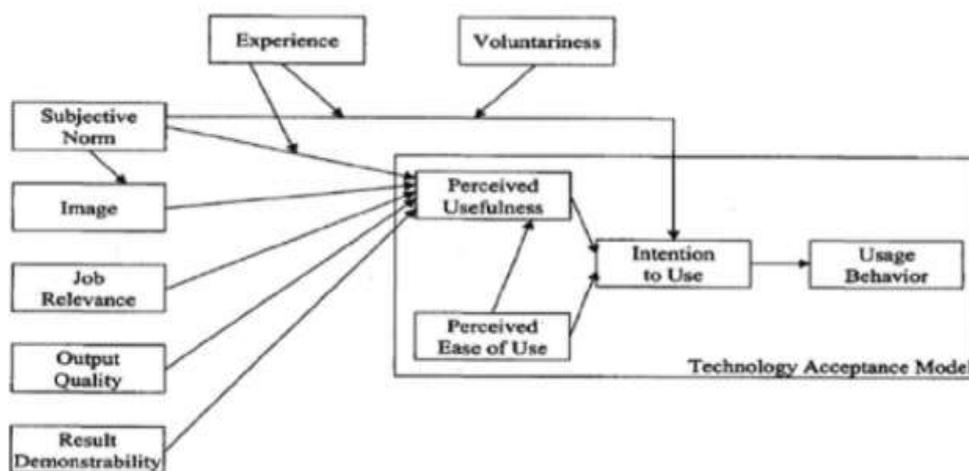


Figure 2.6. Technology Acceptance Model 2 (Venkatesh & Davis, 2000)

In this study, the original TAM was adopted for the current study, given the fact that the study's objectives aim at exploring the teachers and students themselves and their perceptions of readiness of M-learning, not how others think they should or should not accept M-learning.

To be more specific, this study used TAM (Davis, 1986) to examine EFL teachers' and students' attitudes on cognitive and technological use in English M-learning at a university. Attitude refers to the degree to which a person has a favorable or unfavorable emotional response to a specific act, in this study, the use of M-learning in teaching and learning English. It has been pointed out in multiple earlier studies that attitude is a powerful predictor of intention (Ajzen, 1991; Taylor & Todd, 1995b).

In general, TAM was adopted as the theoretical framework for the current study based on the grounds that it is relevant to understand human behavior as regards to acceptance or rejection of technology across disciplines and more focus on education (Huang, 2017). More specifically, the constructs of TAM will shed light on the role of users who are teachers and learners in this study, in adopting M-learning, and on the significance of learners' perceptions, behavioral intentions, and actual uses of M-learning in teaching and learning English. In addition, it is evident from the previous studies that TAM with its adaptability, simplicity and soundness (King & He, 2006) makes it possible and explores users' readiness for M-learning (see section 2.3 for the discussion of readiness). The following sections will discuss PU and PEOU.

2.3.1. Perceived usefulness (PU)

Perceived Usefulness (PU) is defined as the preparedness for M-learning or the intention to use the system. Perceived usefulness, according to Aljuaid et al. (2014), can be viewed as a system, as well as the users' opinion that it can improve their work efficacy. Perceived usefulness is described as a metric by which the usage of technology is thought to benefit the individual doing so, and perceived usefulness is defined as the subjective ability of future users to increase organizational performance by using a given application system (Davis, 1989). Davis also claims that usability perception is a state in which one believes that adopting a certain technology would result in advantages or a favorable influence.

Davis (1989) deduces from his research that PU is the degree to which a consumer believes that consuming a particular way would improve his or her job performance. "TAM postulates that perceived usefulness is an essential factor of user attitude toward adoption of technologies that might lead to the intention to use the technology and actual usage," (Barkhi et al., 2008, p. 34). Similarly, Shen et al. (2009, p. 125) added, "Emphasis should be placed on enhancing the perceived usefulness of virtual worlds for education, which is feasible through the provision of effective course content". Numerous studies have found that PU has a statistically significant impact on intention to use (Islam, 2011a; Lee et al., 2011; Torres et al., 2008; Venkatesh & Morris, 2000). Perceived usefulness is likely to have a substantial impact on behavioral intentions when it comes to adopting mobile device services (Wang et al., 2006) and PU has an impact on mobile learning readiness (Aljuaid et al., 2014).

In the current study, PU denotes EFL teachers' and students' belief that using M-learning will improve their English teaching and learning performance, and it means to be a valuable tool that mobile devices can help teachers and students to learn English effectively.

2.3.2. Perceived ease of use (PEOU)

Perceived ease of use is described by Davis (1989) as a measure of how easily a person believes a computer may be understood and used. Meanwhile, according to Jogiyanto (2007), perception of ease is defined as the degree to which a person believes that adopting technology will liberate them from a business; for example, if a person believes that an information system is simple to use, he would utilize it, and vice versa. PEOU refers to the degree to which a person believes that using a particular system

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would be effort-free. In other words, it suggests that mobile devices are not difficult to manipulate and correct technological problems, according to teachers and pupils. In this study, PEOU refers to how easily EFL teachers and students believe M-learning may be understood and used in teaching and learning English.

Many researchers have demonstrated a major effect of perceived ease of use on intention to use (IU) in the available literature (i.e., Ong et al., 2004; Wang et al., 2006; Yoon & Kim, 2007; Venkatesh, 2000). However, according to the Online Database Adoption and Satisfaction Model, perceived ease of use has a significant direct impact on intention, albeit in a negative way (Islam, 2011a). Chang et al. (2012) found that perceived ease of use has no direct impact on the intention to use mobile technology for English learning in other relevant studies. As a result, the perceived ease of use will have an impact on mobile learning readiness (Aljuaid et al., 2014, p. 5).

Furthermore, many previous researchers have used TAM to incorporate user attitude and acceptance in education, providing a valuable referencing source for the current study. TAM can be assumed to be reasonable to employ based on the preceding discussions. Furthermore, this idea addresses people's attitudes and acceptance of technology, which includes their psychology, agreement, and preparedness to use it. The human factors are mentioned with individuals' intentions, the community relevant to habits and culture is formed, and the social factor appears; thus, the TAM is appropriate for examining the readiness of EFL teachers and learners to learn English through mobile devices.

In the current research, intentions to use mobile technology imply a disposition to employ mobile devices for teaching and studying English. Similarly, intention to use refers to a broad criterion and conclusions based on the findings of analyses of aspects such as PEOU's attitudes toward ease of use, PU's attitudes toward usage, and PU's ability to use mobile technology. In other words, IU has an impact on users' decisions to use mobile devices under wireless network to help their English teaching and learning, and IU analysis will show users' readiness for mobile learning. Furthermore, the tendency behavior of a person in doing technology is referred to as behavioral intention to utilize. The level of technology use can be used to predict interest in behavior, as can the attitude and attention. The desire to motivate other users continues to drive the deployment of such technology.

In general, two variables of the TAM, namely, perceived usefulness (PU) and perceived ease of use (PEOU) were subdivided into smaller components such as

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attitudes, perceptions, and behavior to be presented in the research instrument contents to investigate users' intentions towards English teaching and learning utilizing mobile technology. The following figure illustrates how TAM was adopted and adapted as the theoretical framework for the current study.

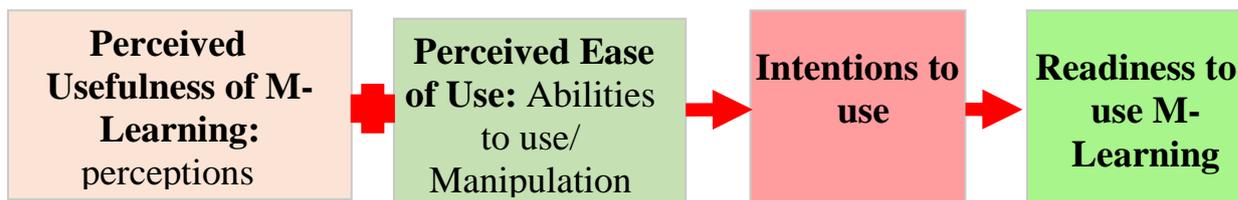


Figure 2.7. Adapted TAM as the Theoretical Framework for the Current Study

Until now, current research's main task is to officially investigate four key factors: (1) EFL teachers' and students' attitudes toward using mobile devices in English teaching and learning; (2) users' manipulation on mobile technology; (3) users' perceived usefulness of use of mobile devices; (4) users' willingness to adapt to using modern mobile devices to conclude EFL teachers' and students' readiness on English mobile teaching and learning. The detailed framework is illustrated below:

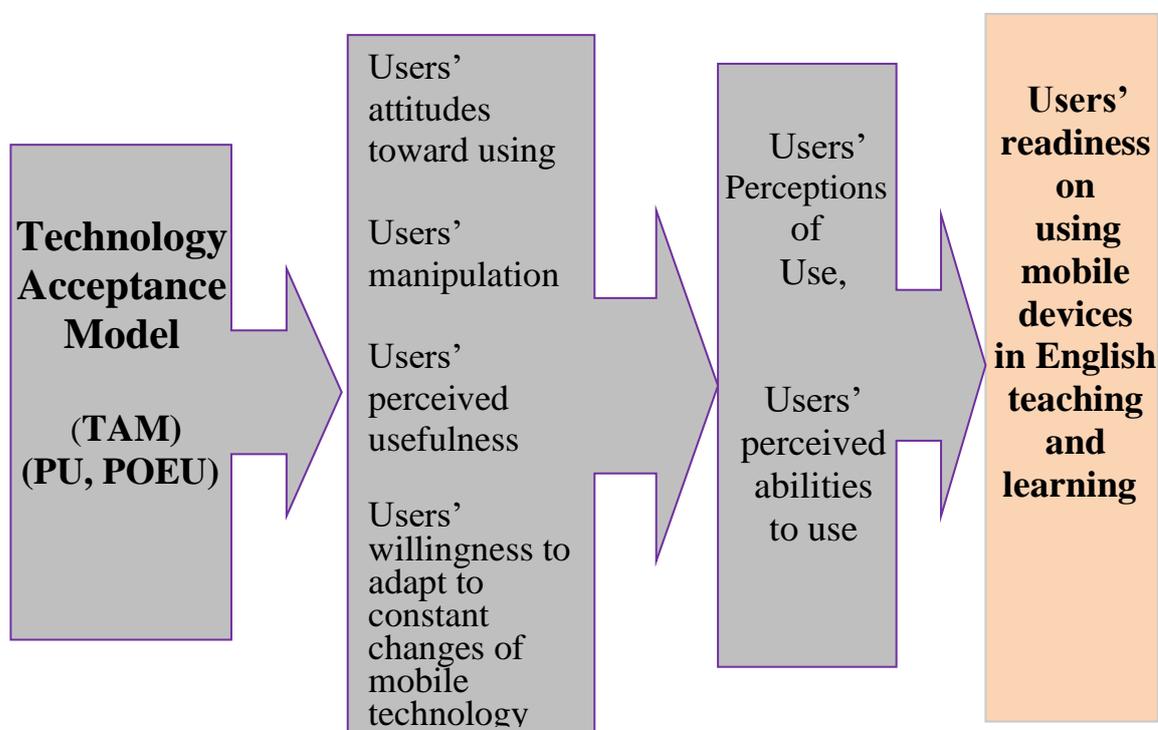


Figure 2.8. Adapted theoretical frameworks for the current thesis

2.4. Review of previous studies

Studies on M-learning in the EFL contexts have been carried out across the globe to scrutinize the perception of teachers as well as students to carry out M-learning. Despite the fact that a good volume of studies has been carried out, the official and widespread implementation of M-learning in English teaching and learning is still an orientation in Vietnamese education, particularly at institutes and large universities across the country. The following reviews the related studies to the current one.

A good volume of studies has adopted TAM to research teachers' and students' perceptions and attitudes towards M-learning. One of the most recent studies in this field was carried out by Cavus et al. (2020) surveyed 180 teachers from North Cyprus and Russian universities on their perception of mobile learning. The statistics shows that their approval for M-learning is high but this rate is proportional to professional seniority and age ranges. Factors that affect this difference in perception of M-learning come from technology-supported trainings, material design courses, and technology-supported trainings at universities. The authors suggest increasing in-service training to teachers who hold high professional experience and ages regarding M-learning. However, the interview and classroom observation were not designed to collect data throughout the investigation, which leaves a gap for the current study to fill to explore what teachers and students actually do with mobile devices in their teaching and learning English.

Similarly, the study by Gómez-Ramirez et al. (2019) adopted TAM to explain how perceptions influence M-learning adoption among Colombian university students. Data were collected via a self-administered questionnaire completed by 878 undergraduate university students. The findings suggest that the constructs of TAM have a moderate impact on the intention to adopt M-learning but stimulate future research and promote an effective diffusion of M-learning in developing countries. The quantitative approach was used to interpret the effectiveness of mobile phones on students' self-conscious acquirement without applying mixed-methods to collect data. Besides, the findings of the study by Gómez-Ramirez et al. (2019) suggested that future ones should employ either the quantitative and qualitative approaches or mix-methods for a more comprehensive exploration of the topic of M learning, which indicates a gap for the current study to fill.

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In addition, factors that determine the acceptance and adoption of M-learning were explored. For example, in the study by Mekhzoumi et al. (2018), data were collected from 675 participants in Malaysia to investigate their experiences in using mobile applications for English language learning and to examine the factors affecting their choice of using M-learning. The findings indicate that students perceived the necessity of M-learning, and the majority of them had previous experience using M-learning in learning English. More importantly, the factors such as performance expectancy, effort expectancy, social influence, facilitating conditions, and self-management of learning were all significant factors that affect students' intention to use M-learning in learning English.

Previous studies have also focused on applying specific applications in English learning and teaching while M-learning applied in aspects of language learning has also been explored. For example, the study by Zahirah (2019) explored English grammar learning via one M-learning application Learn English Grammar. Forty participants of first-year students of a university learn grammar through Learn English Grammar M-learning for one month. The results indicated that the students learn new vocabularies, understand better sentence structures, become more enthusiastic and engaged in the learning process, and it also promotes lifelong learning. The study by Zahirah (2019) provided an exploration of learning grammar via an application; however, it would be more insightful to employ qualitative data from interviews and observations to provide depth to studies on a similar topic.

In the same vein, the study by Putra et al. (2020) investigated the relationship between students' perceived effect and their intention to use the application "Hello English". The participants included 24 male and 73 female students. The result of a bivariate correlation analysis shows a statistically significant positive relationship between students' perceived effect and intention to use mobile technology where gender differences do not significantly influence these two factors. Another finding from the study is that those who used "Hello English" for more than three months perceived the effect of the application on their communicative competence better than those who only used it for less than three months.

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Ardi's (2017) study was to delve into using a social networking learning management system at a university in Malaysia to explore how the Schoology M-learning platform facilitated the exercise of learner autonomy in an EAP class at an Indonesian higher education. Different from previous studies, this study adopted a qualitative case study involving twenty-one students enrolled in English for academic purposes course that adopted a blended learning method. The findings suggested that Schoology M-learning platform helped the students to exercise autonomy in learning. When working on the M-learning platform, the students had to select materials, self-controlled their learning management and learn English at their pace, time, and place. Besides, the media-rich materials encouraged the students to further explore other materials online.

Many other authors have also used TAM to investigate teachers' and learners' attitudes and views of mobile technology in teaching and learning in the past. Some examples include Dashti and Aldashti (2015), Nassuora (2012), Liu (2011), Williams (2009), Yuan-Kai (2004), Ghried (2015), Abdulhafeth and Mahmoud (2013), Begum (2011), and Nah et al. (2008).

For example, Dashti and Aldashti (2015) used questionnaire to survey EFL teachers' and students' attitudes towards learning through cell phones. The quantitative analysis points out that instructors and students have comparable good attitudes regarding M-learning which is believed to subscribe to and provide their teaching and learning documents and materials via wireless technology system. Similarly, Nassuora (2012) explored the potential of M-Learning for use in higher education by using a questionnaire designed by the unified theory of acceptance and use of technology (UTAUT) paradigm as a benchmark for assessing 80 students' interest in M-Learning. The study findings reveal that students have a high level of agreement with M-Learning. There remains a question about teachers' readiness for M-learning or not, which leaves a gap for the current study.

Liu (2011) conducted a case study to construct two adoption frameworks for basic and tertiary education. The findings also show that educational systems' perceived long-term usefulness should be as significant as utilitarian systems' perceived usefulness and hedonic systems' reported enjoyment. The author suggests

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that a classification based on the nature of the system's goal (utilitarian, hedonic, or instructional) would help to clarify the essence of IT innovation adoption.

Williams (2009) used the UTAUT model to examine the M-Learning effectiveness acceptance extent on the control group (Face-to-Face) and treatment group (Face-to-Face) who answered interview. The study's findings conclude that UTAUT's factors influenced M-Learning acceptance. However, the study did not provide as much insight into the M-Learning environment as it did when applied to other technology contexts. This qualitative experimental interview analysis was conducted qualitatively without a questionnaire and observation with mixed-methods as the current thesis.

Yuan-Kai (2004) presented his views on M-learning in terms of context awareness and the importance of adaptation in mobile learning. Context-aware M-learning of the study detects and responds to changes in context during the learning process. The findings revealed the difficulties of context awareness and modifications that users faced.

English teachers' and students' opinions on MALL effectiveness were collected through quantitative data from Ghried's (2015) questionnaire. It was concluded that both students and teachers had a favorable opinion; furthermore, MALL can improve teaching and learning. However, qualitative data were not used in this study.

Abdulhafeth and Mahmoud (2013) tested the impacts of mobile phones on the EFL learning achievement and students' attitudes towards this learning platform through teaching experimental on control and experimental groups of students taught by mobile phones for both. In addition, students' attitudes towards using cell phones in the EFL classroom via questionnaire. The findings report that EFL students have favorable attitudes regarding utilizing cell phones in the classroom. Nonetheless, this study investigates students' attitudes only. Teachers' attitudes are not surveyed in a case study collected data by interview and observation.

Begum (2011) used SMS-based class exams on 100 EFL students to evaluate mobile phones' potential as instructional tools by questionnaires. As well as teachers' interview records and classroom observation reports were used to collect data. The findings showed that mobile phones have the potential to be used as an instructional

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tool; nonetheless, many teachers agree that mobile phones are distracting in the classroom. Nah et al.'s (2008) listening experimental was implemented on a group of undergraduate EFL students basing on input, interaction, output, and sociocultural theories, as well as collaborative, learner-centered, constructivist, and task-based learning methodologies. The study outcomes state that learners had positive attitudes on using the WAP site to develop listening skills since the WAP can expand possibilities to learn language skills and motivate language learners to participate actively. There is a consistency in the findings when it comes to measuring students' behavior on M-learning. Nevertheless, EFL teachers' and students' perceptions and intentions to use mobile technology are not surveyed by questionnaire, interview, and observation.

In the context of Vietnam, there is a dearth of studies on readiness for M-Learning. The most recent one was carried out by Pham et al. (2021) who explored combined M-learning, gamification, and other factors influencing learning motivation into a mobile application to reinforce students' learner autonomy. The authors used experimental methods with surveys and tests to find a correlation between students' personal interest in the subject and their performance thanks to utilizing M-learning and gamification to improve students' learner autonomy.

Lin et al. (2020) conducted an online survey of 947 respondents in Taiwan, Vietnam, Indonesia, and China to see their acceptance of M-learning. The study's results show that behavioral intention towards the adoption of M-learning was influenced by attitudes, subjective norms, and perceived behavior control among the Taiwanese, Chinese, Indonesian, and Vietnamese undergraduate students. Another finding of the study was that perceived behavior control was a significant predictor for students in Taiwan and Vietnam but was not a significant predictor for students in China and Indonesia.

Pham (2020) employed both quantitative and qualitative data to study students' attitudes toward mobile-assisted language. The author reported that the participants basically held positive attitudes towards using mobile-assisted language learning inside the classroom. The author also suggested that mobile-assisted language learning be adopted as a new approach in English language teaching and learning and in the long term to develop the digital literacy of both instructors and learners. The findings

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indicate students' positive views and that almost all students were willing to adopt the new learning trend. Thus, further exploration to dwell further into the topic would reveal a more comprehensive picture of the current employment of M-learning in an EFL context.

Dang and Nguyen (2014) followed TAM to investigate 301 Vietnamese university students' adoption of mobile phones and tablets for studying, accessing course materials, searching the web for information related to their discipline, sharing knowledge, conducting assignments, and so on, using SEM technology via questionnaire as the research approach. However, teachers' motivation and acceptance are not surveyed by qualitative interview while classroom observation is analyzed by mixed-methods.

Ngo and Gim (2014) then conducted a survey and demonstrated the elements that influence college students' intentions to use M-learning by questionnaire. Nonetheless, the authors placed a strong emphasis on hands-on exploration rather than theoretical approach. Although college students' intentions are found, yet, both university EFL students' and teachers' readiness are not focused on in this study. Nguyen (2016) investigated the notion of mobile learning and confirmed students' readiness for M-learning; however, this study did not focus on teachers as users.

2.5. The research gaps and justification for the current study

The review of the related studies in other countries as well as in Vietnam indicates that the topic of M-Learning has been explored and TAM has been used in these studies. However, there are gaps in both the adopted TAM to investigate the issue of one specific issue of M-Learning, which is readiness, and gaps in the research design.

First, regarding the underlying theory, most of the studies reviewed adopted TAM to see if teachers and students, and mainly students alone perceived the usefulness of M-Learning in general or mobile technology with specific tools including mobile phones. More specifically, the previous studies have focused on students' perception and attitudes of M-Learning (Cavus et al., 2020); relationship between students' perceived effect and their intention to use the application "Hello English" (Putra et al., 2020); acceptance of M-Learning (Lin et al., 2020); the influence of M-Learning (Gómez-Ramirez et al., 2019); one application to learn English grammar (Zahirah, 2019);

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experience of using mobile applications to learn English (Mekhzoumi et al., (2018); the use of a social networking learning management system to see how an M-Learning platform facilitated the exercises of learner autonomy in an EAP (Ardi, 2017); adoption of mobile phones and tables in learning English (Dang & Nguyen, 2014); teachers' and learners' attitudes and views of mobile technology in teaching and learning in general (Dashti & Aldashti, 2015; Nassuora, 2012; Liu 2011; Williams, 2009; Ghried, 2015; Yuan-Kai, 2004, Abdulhafeth & Mahmoud, 2013; Begum, 2011; and Nah et al., 2008). However, none of the previous studies used TAM to explore the topic of readiness related to abilities and intentions in using M-Learning for English teaching and learning at the university level.

Second, in terms of research design, most of the studies reviewed above resorted mainly to the use of a questionnaire to obtain survey data from either teachers or students or both groups. Some have also combined both questionnaires and interviews. The current study adopted a mixed-method approach with a triangulation design, using questionnaire, in-depth interviews and class observations to investigate both teachers' and students' readiness for M-Learning.

2.6. Contributions from the thesis

Theoretically, one novelty of the current study is the adoption of TAM as the theoretical framework to explore the topic of readiness related to perceived abilities in using M-learning for English teaching and learning at the university level. Most of the studies adopting TAM focused mainly on students and how they perceived the usefulness of M-learning in general or mobile technology with specific tools i.e., mobile phones in particular. The previous studies have delved into the students' perceptions and attitudes toward M-Learning (Cavus et al., 2020); relationship between students' perceived effect and their intentions to use one English learning application (Putra et al., 2020); acceptance of M-Learning (Lin et al., 2020); the influence of M-Learning (Gómez-Ramirez et al., 2019); the use of a social networking learning management system to see how an M-Learning platform facilitated the exercise of learners' autonomy in an EAP (Ardi, 2017); adoption of mobile phones and tablets in learning English (Dang & Nguyen, 2014); teachers' and learners' attitudes and views of mobile technology in teaching and learning in general (Dashti &

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Aldashti, 2015; Nassuora, 2012; Liu 2011; Williams, 2009; Ghried, 2015; Yuan-Kai, 2004, Abdulhafeth & Mahmoud, 2013; Begum, 2011; and Nah et al., 2008). The current study expanded TAM into the notion of readiness through EFL teachers' and students' perceived ease of use (PEOU) or their claimed abilities, and manipulation of mobile devices in teaching and learning English. With that expansion, the concept of readiness must be put in the context of exploring the users' perceptions, willingness, and acceptance for employing M-learning. In other words, the current study explores EFL teachers' and students' attitudes toward the use, attitudes toward the ease of use, abilities to use or manipulate, and willingness to adopt mobile technology in English education.

Methodologically, in terms of research design, most of the previous studies on M-learning resorted mainly to the use of a questionnaire to obtain survey data from either teachers or students, or both groups. Some have also combined both questionnaire and interview. The current study adopted a mixed-method approach with a triangulation design, using questionnaire, in-depth interview and class observation to investigate both teachers' and students' readiness for M-Learning (see chapter 3). The triangulation in methodology managed to yield more profound data on both perceptions and reality of using mobile devices in English teaching and learning. Similar findings from the questionnaire for the teachers and students helped the researcher to confirm the readiness in perceived abilities to employ M-learning of both groups in the current study. The class observations contribute to the solidification of the findings from the questionnaire and interviews, revealing the reality in which both teachers and students have employed mobile devices in their classes. Besides, the collection of data from both EFL teachers and learners has proven to be suitable for the mixed-method approach in the sense that it could gather perspectives from different parties for the one issue of M-learning being explored.

Practically, the study fits in the digital era whereby the integration of technology into education in general and in teaching and learning English in particular has become globally prevalent. In this sense, it contributes to the investigation of the features of mobile technology in education and examines its acceptance by learners and educators to see the driving factors of its adoption (Gómez-Ramírez et al., 2019). The necessity

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of adopting M-learning should be explored with its acceptance in the educational context (Althunibat, 2015; Laurillard, 2007; Al-Emran et al., 2018). The study tackled this issue and explored the attitudes of the EFL teachers and students toward M-learning.

2.7. Summary

This chapter has presented a review of the key concepts related to the study. The chapter also provided a review of the previous studies in other countries and Vietnam to identify the gaps in the current study. The next chapter will describe the research approach and design.

CHAPTER THREE: RESEARCH METHODOLOGY

This chapter describes the research design, research participants, data collection instruments, procedure of data collection and data analysis. The purpose of this study is to explore EFL teachers' and learners' readiness for the use of mobile devices for English teaching and learning. To serve this purpose, the mixed-method approach was employed together with research triangulation.

3.1. Research design

3.1.1. Mixed methods approach

This study adopted a mixed method approach. Johnson et al. (2007) describe the mixed-method research as follows:

A mixed methods study is the type of research in which a researcher or a team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration. (p.123)

Similarly, recently, Piccioli (2019) confirmed the combination of quantity and quality in a mixed-methods approach:

A mixed-methods study has been introduced with the expectation of becoming a third way in social sciences as regards the quantity-quality dichotomy by contemplating the integration of different approaches and, with them, diverse analytical methods, not as simply their sum but as an integrated, integral approach to the situation being studied. (p. 427)

The mixed-methods approach has been claimed to be justified for educational research (e.g. Ghiara, 2020; Maxwell, 2019; Piccioli, 2019). One reason for its adoption in the current study comes from its “ultimate goal of achieving significant results and responding to the situation of the phenomenon under investigation” (Piccioli, 2019, p. 427). Besides, this approach is considered to allow the intersection of the different levels of the research process, including the research questions, selection of techniques and strategies, data collection, analysis, interpretation, legitimation and report presentation (Ramírez-Montoya & Lugo-Ocando, 2020).

Another reason for its adoption is to meet the objectives of the current study which are to explore teachers' and students' perceptions and readiness for M-Learning in

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teaching and learning English; therefore, it is essential to employ both quantitative and qualitative approaches to look at the issues for integration. “The use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone” (Creswell & Clark, 2011, p.5). Similarly, McKim (2017) stated, “Integration gives readers more confidence in the results and the conclusions they draw from the study” (p.203). In other words, the adoption of the mixed method approach is to reduce the shortcoming of a single research method of either quantitative or qualitative. In the same vein, Creswell and Clark (2011) pointed out that the hybrid method allows a higher level of understanding to be formed rather than when a single methodology is used for specific studies.

As reviewed in the literature chapter, even though the topic of M-Learning has been explored in different institutional contexts to examine specific features of M-learning such as an application for learning English grammar, English speaking or the use of mobile phones in learning English or teachers’ and students’ perceptions of mobile devices, the previous studies resorted mainly on survey or a combination of both survey and interview. A combination of questionnaire, interview and class observation was hardly deployed, leaving the question whether in reality mobile devices are actually used in the real classrooms. Besides, the triangulation of the three data collection methods, namely questionnaire, interview and class observation will illuminate the topic of M-learning in the EFF context (see more discussion on triangulation in this chapter).

The employment of a mixed methods study research is pertinent to this study because data elicited from a questionnaire might be inadequate to determine the respondents’ actual use in practice (Hsiao & Oxford, 2002). Accordingly, to increase the accuracy and validity claims of M-Learning in English teaching and learning, the researcher combined questionnaire, interview and class observation for data collection and interpretation of the data in a triangulated manner.

For all the aforementioned reasons and purposes, the mixed method approach was adopted in the current study to triangulate the findings collected from both quantitative and qualitative methods to shed light on the topic teachers’ and students’ readiness for M-Learning in English teaching and learning. The next section will present the triangulation in the current study.

3.1.2. Methodological triangulation

To explain the mixed method design model, Creswell and Clark (2007) dissect it into four main types, namely embedded design, explanatory design, exploratory design and the triangulation design. In the current study, the triangulation design is seen as the most reasonable. The triangulation mixed method design is illustrated in the following diagram:



Figure 3.1. The triangulation of a mixed methods study design model (Creswell & Clark, 2007)

According to Creswell and Clark (2007), a triangulation approach is to gather various data on the same issue for analysis and interpretation. Allan (n.d., Slide 24) demonstrates that the model's advantages are hidden inside its sensibility. It makes logical sense to collect data from several sources while employing various approaches in a cohesive design. The enormous work and knowledge required to bring everything together, as well as the opportunity for new research or employment as a result of data set divergence.

The current study used the Creswell and Clark (2007) triangulation design methodology to examine research data. Collecting and analyzing quantitative data from questionnaires were carried out first to explore participants' behaviors and perceptions of teaching and learning English through mobile devices. Then, qualitative data from in-depth interviews and classroom observations were gathered to analyze the participants' ideas about teaching and learning English through mobile technology more profoundly.

It can also be said that the current research employed methodological triangulation (Denzin, 2012) to collect a chain of evidence in data collection from various tools. In this study, questionnaire, interviews, and class observations were used. Each of them obtained different sources of inter-personal and intra-personal information pertaining to the research questions. Second, the data gathered through these triangulated

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means were then cross-analyzed in order to obtain an in-depth understanding of teachers' and students' perceptions of the use of mobile devices in teaching and learning English as well as their readiness in ability to use M-Learning. In other words, data from the three sources related to each research question was pulled together and interpreted. More specifically, teachers' and students' perceptions of M-Learning were collected from questionnaire and interview and then extracted and discussed. Besides, data from classroom observations were analyzed to see how their manipulation of M-Learning in English classes was actually realized. Differences and similarities in the findings from the three tools of data collection were discussed to deepen the understanding of the matter under investigation in the light of TAM.

3.2. The research site and population

This study was carried out at a university once known as a college of pedagogy, but since September 2007, it has been transformed into a new university. It is one of the public universities in Vietnam, with over 650 faculty members and over 18.000 students in 20 faculties. The university has a Foreign Language Department with 34 English instructors and 1 French teacher. It has more than 1000 English major students and 17.000 EFL students. More than 14.500 EFL students attend university, including more than 3.200 freshmen and 3140 sophomores, about 3.110 juniors, and more than 3.100 seniors. The educational setting at this university is quite well equipped with Projectors, CD players, tables, chairs, electric fans, lights, and other basic teaching aids in the classrooms.

At the time of the study, there were 5.689 students at the university between the ages of 19 and 21. There are 7.183 males (54%) and 6,029 females (46%) in the group, with 157 males (52.3%) and 143 females (47.7%) responding to the survey. 69 EFL teachers among 603 foreign language faculty members and they ranged in age from 25 to 62 with at least two years of EFL teaching experience. Six women and six men were chosen at random to participate in an in-depth interview (20% each). There were 391 males and 212 females in the teacher population. Twelve men and 57 women were among the total number of respondents, which was representative of the population.

EFL teachers and students at this university were the target population and they were chosen for the reason of accessibility to the research site where the researcher has

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been working. All the EFL students for the academic year 2018 - 2019 and teachers who were teaching and learning English EFL thereby official positions and part-time English teachers.

3.3. Participants

This research includes two groups of participants: 69 EFL teachers and 300 EFL students at a university in Vietnam.

3.3.1. *EFL teacher participants*

Similarly, 69 EFL teachers were chosen as teacher-participants without any filtration. Among all the teachers, there were 12 males and 57 females, ranging in age from 27 to 62. They had at least two years of experience teaching English as a foreign language (EFL). Of them, there were 21 doctors of education, 41 teachers having master degrees and 7 ones as PhD students. All of them have many years of teaching English as a Foreign language (EFL) and teaching English for specific or special purposes (ESP) at universities and colleges in Ho Chi Minh city in Vietnam. Six female and six male teachers were chosen to participate in an in-depth interview (10 %).

3.3.2. *EFL student participants*

Non-English majored students who planned to learn general English enrolled in regular training in majors such as economics, business administration, accounting, finance, environmental science, primary education, preschool education, fine arts, music, mathematics education, physics pedagogy, chemistry pedagogy, biological pedagogy, literature pedagogy, and history pedagogy were included in the sample.

A total of 300 EFL students were chosen evenly from thirty such majors, with 15 students each. The reason for the large number of students picked by the researcher is that the sample size was limited to 10% of the total population, participants were picked at random based on their willingness to participate. For each major, only 15 students who volunteered to participate in the study were recruited. The sophomores were chosen as the research participants because they were familiar with the learning environment at the research site. Besides, they had enough willingness and time to take part in the study and more importantly, they have utilized M-learning in their English study.

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3.3.3. *The roles of the researcher*

The researcher played a key role in the development of instruments such as questionnaires, in-depth interviews and classroom observation. She delivered the questionnaire and directed as well as explained to the participants to complete without demanding EFL teachers and students to choose the scales according to her preferences. Furthermore, she remained silent during the survey. During the in-depth interview, the researcher requested the participants that the responses of the participants be recorded. She listened and took notes without offering any indication of how the respondents should respond. Finally, she became an observer of EFL teachers' and students' activities on their mobile devices and facilities serving mobile teaching and learning in five EFL classes. All information was taken notes in an observation sheet.

3.4. Instruments

As mentioned earlier, three instruments were used in the current study as summarized in the following table:

Table 3.1. Research instruments

Research questions	Instruments
1. What are university EFL teachers' perceptions of M-learning?	Questionnaire In-depth interviews Classroom observations
2. What are university EFL students' perceptions of M-learning?	
3. To what extent are university EFL teachers ready in perceived abilities to use M-learning in English teaching?	
4. To what extent are university EFL students ready in perceived abilities to use M-learning in English learning?	

3.4.1. *Questionnaire*

To discover the responses to the first research question, a questionnaire was created in English for EFL teacher participants because they were capable of comprehending the English language. However, the questionnaire for EFL students was written in a bilingual language of English and Vietnamese to ensure that the meaning of the questionnaire was clearly understood by the participants (see appendices 1 and 2). TAM variables, namely, perceived usefulness, perceived ease of use, and attitudes toward using were included in the content of the questionnaire items

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to explore EFL teachers' and students' attitudes, perceptions, and behaviors, intention and ability to manipulate technology and M-learning.

The majority of the questions were rating statements, with the goal of understanding EFL students' perceptions. The Likert-style rating scale was most commonly used to rate statements, in which respondents were asked how strongly they agree or disagree with a statement or sequence of statements (Saunders et al., 2009). The researcher created the survey to learn about EFL teachers' and students' attitudes toward learning English through mobile devices and their potential applications in a variety of ways. For each sentence, a five-point Likert scale was used to determine the responses: (1) Strongly Disagree, (2) Disagree, (3) No idea, (4) Agree, and (5) Strongly Agree. Participants completed the questionnaire by placing one tick in each of the scale line cells.

The questionnaire included statements divided into five sections for both teachers' and students' questionnaire alluded and arranged correlatively in order to define perceptions, including attitudes of EFL teachers and students toward teaching and learning English through mobile devices, and behavior in using mobile technology (Appendices 1 and 2). The following is a breakdown of the five components of the questionnaire for both groups of EFL teachers and students, as well as an explanation of why they were chosen:

Section 1: Demographic

The first element of the questionnaire is demographics, which includes three questions for both teachers and students. However, in the first question, it is necessary to confirm participants' gender and major in order to determine whether male and female perceptions of mobile learning differ. The second question verifies EFL students from a variety of majors; however, EFL teachers are actually validated by selecting an English degree they had. Finally, the third question asks students and teachers on the sorts of mobile devices they own.

Section 2: EFL teachers' and students' attitudes toward using of mobile devices (ATU) in English teaching and learning

In addition, in section two, nineteen statements were prepared to assess teachers' and students' attitudes on the usage of mobile devices in English classes (statements 6,

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7, 8, 9, 10, 11, 12, 13, 15, 18, 19). The statements in this part elicit teachers' and students' attitudes and assessments on a variety of features of mobile devices for student learning, such as student-teacher interaction, student-student interaction, and student-student contact (statements 2, 3, 4, 14, 16), habits and culture of M-Learning through mobile devices among students (statements 1, 5, 17).

Section 3: EFL teachers' and students' manipulation (M) on mobile devices for English teaching and learning

The third section shows the lists of twelve statements (statements 20-31) grounded on TAM to elicit users' capability to use mobile device use. As the preparation for technology and mobile device equipment, knowledge and ability to use, as well as solve the basic problems of smart and mobile technology during learning English through mobile devices of EFL teachers and students. This section also aimed to investigate the teachers' and students' capacities of using mobile devices. Furthermore, the goal of this area of the statements is to determine to what extent they can employ M-learning.

Section 4: EFL teachers' and students' perceived usefulness (PU) of mobile devices to teach and learn English

The fourth section targets at obtaining information about teachers' and students' attitudes towards ease-of-use mobile devices to learn English and their perceived usefulness and willingness to adapt M-learning. The first nine statements (statements 32-40) showed how easy teachers and students see and the difficulties they think they may face in manipulating M-Learning, the challenges of mobile devices (statements 41-44).

Section 5: EFL teachers' and students' willingness to adapt to constant changes in mobile technology (WAC) for English teaching and learning

Statements 45-52 and statements (statements 53-59) highlight the value of mobile devices for students learning English as well as what teachers and students want from M-learning. The statements also elicited how useful teachers and students consider about mobile devices in English teaching and learning as well as how they are willing to adapt to changed portable technology.

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To summarize, the researcher divided the questionnaire contents into five sections to explore the attitudes towards using mobile devices in English classes of EFL teachers and students as well as their behaviors, perceived usefulness and ease of use of mobile devices. Furthermore, the statements aimed to obtain information about the abilities to handle and correct mobile device problems that occur during the M-learning process. The next section discusses the in-depth interview tool.

3.4.2. In-depth interviews

The researcher used an in-depth interview to learn about EFL teachers' and students' readiness for M-learning. An in-depth interview is a qualitative research technique that entails conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, program, or situation (Boyce & Neale, 2006). It also uncovers the interviewees' attitudes, assessments, views, preferences, enjoyments, associations, and so on, allowing researchers to delve deeper into mentation, stream of consciousness, and hidden needs, as well as identify novel answers to problems in social and educational studies. As a result, the in-depth interviews are being conducted to determine the participants' underlying attitudes and opinions regarding using mobile devices in English teaching and learning in the current survey. As a result, in-depth interviews are useful for questioners who want to learn more about respondents' attitudes and habits or who want to dig further into new topics (Boyce & Neale, 2006).

Based on the current study's goal, a face-to-face interview was chosen to conduct an in-depth interview with EFL teachers and students. Such form of interview is expected to provide useful data for a survey on acceptance and attitudes, as well as the opinions of EFL teachers and students on M-learning at a Vietnamese institution. Within 10 to 15 minutes, seven open-ended questions were put forward to the EFL teachers and students to collect their detailed opinions on assessment, consideration, and M-learning implementation in teaching and learning English. Seven themes were coded from seven interviewees' responses like ownership, conception, expenditure, equipment, usefulness, adaption and agreement. In order to collect deeper data through primary research, the researcher carried out several semi-structured interviews which required the interviewees to go through each and every question, starting with the main

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question, then the sub-questions. The in-depth interview was initially conducted in Vietnamese before being translated into English for subsequent data analysis. All of the participants' thoughts and opinions were written down on answer sheets with their permission. The data was then evaluated to show how prepared EFL teachers were for M-learning (Appendices 3 and 4).

3.4.3. Classroom observations

On the one hand, in order to understand more about users' skills in practice to employ mobile technology in their teaching and learning, actual classes were observed when teachers and students used their mobile devices, and their activities were recorded. On the other hand, if the participants' perceptions were gathered from questionnaire while profound ideas were collected from in-depth interview, EFL teachers' and students' consciousness and proactivity in the use of mobile devices for their English teaching and learning could be visually observed in classes. The classroom observation marked the pivotal and final stage of the data collection process about lecturers' and learners' readiness for M-learning among up-to-date technology revolution 4.0 from their perceptions to practical adoption. Thus, the content of the observation was divided into three sections to investigate EFL students' and teachers' (1) mobile device ownership status with 5 significant findings, (2) manipulation with 2 significant findings, and (3) purposes to use for English learning in their English classrooms with 12 significant findings. The observation sheets were organized in a table with columns for "Observation contents," "Teachers," and "Students" (Appendix 5). The researcher asked for permission from the participating teachers to attend the classes and observe the progress of M-learning adoption. The researcher firstly sat at the end of class where she can see the whole class to observe all of the teachers' and students' activities. Then, the researcher circulated the classroom and recorded all target information in the recording English sheets. Extra information is noted in column one at one corresponding cell in the observation sheet, and the target information is ticked by one "X." In total, the researcher observed EFL teachers and students for five hours in their actual classes of English.

The observations were carried out in five weeks for five EFL classes which involved the EFL teachers and students who agreed to be observed. Language-skill

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classes including listening (a class of 35 students), reading (36 students) and writing (31 students) were observed together with other classes of pronunciation (33 students) and grammar (37 students). Notes were taken in the observation sheets throughout the observation period. The total time for observation was 50 minutes.

3.5. Data collection procedures

Data was collected for three months at the research site from January 5th to April 5th in the second semester of the academic year 2018-2019. The pilot study and the main study are described below.

3.5.1. *The pilot study*

Aiming at testing the three research instruments, namely, questionnaire, interview and classroom observation, the pilot study was carried out. A total of 10 EFL teachers and 30 EFL students were invited to join the pilot study. These teachers and students shared similar characteristics to those by the participants in the main study in terms of English teaching and learning background.

To carry out the quantitative pilot study, the reliability of the questionnaire was tested via the value of Cronbach's Alpha. It can be noted that alpha for some clusters is acceptable ($>.77$). However, for some clusters, the reliability is not quantified enough. Analyses with alpha for the questionnaire items were also run to identify questionable items. After piloting and running with SPSS, items 1, 38, 41, 43, 53, 56, 57 and 59 were found to have rather low-reliability efficiency as compared to the standard of Cronbach's Alpha ($>.60$), so they were revised and reworded to make them as simple and understandable as possible. The pilot of the questionnaire also revealed that its contents should be clear and informative enough for participants to understand. Some of statements, for example, teachers' questionnaire 1, 5, 19, 43, 53, 57 and 58 which were easy to be misunderstood, were adjusted in a more academic writing style. Besides, students reported lengthy time to complete the questionnaire (45-60 minutes) in the introduction paragraph only because it was too long for them to read through Vietnamese explanations. The introduction was revised to ensure it took 25-30 minutes for each questionnaire completion.

In the qualitative pilot with the semi-structured Vietnamese questions for in-depth interview, it was found that the teacher participants were confused of the

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questions 3 and 7, which prompted similar answers. Therefore, it took them more than 1 minute to think and ask the interviewer to explain. On the contrary, the fifth question made students misunderstand. These questions were revised to ensure the respondents answered in the right orientation.

The researcher also observed on period of an English class at the research site to locate the place where she should sit to obtain data and how to work on the observation sheet before collecting data for the main study.

3.5.2. The main study

To conduct the main study, the researcher first contacted a group of 69 EFL teachers, and then handed out a consent document to seek approval from the leaders at the research site and the teachers themselves to participate in the survey by filling out a questionnaire. All participants who agreed to participate in the survey signed the research consent paper once the dean of foreign language faculty approved the poll. Besides, the researcher similarly sought consent from the 300 EFL students and delivered the questionnaire to them for completion in the middle of the second semester of the 2018–2019 school year. EFL teachers and students returned the completed questionnaire within one week.

After the questionnaire collection, the researcher created a schedule for twelve EFL teachers and twelve EFL students to participate in an in-depth interview. They were also free to choose from a variety of interview locations, including main or sub-campuses, classrooms, faculties, canteens, cafés, coffee shops, private residences, and so on. The purpose of the in-depth interview was introduced to the participants at the beginning of the interview, which was to obtain participants' thoughts on M-learning. When the participants agreed to be recorded, the researcher began recording the dialogue for data analysis. She read each question and jotted down the responses of the respondents on a piece of paper. Each interview last ten to fifteen minutes.

In the next stage of data collection, five EFL classes of English skills and knowledge: reading, writing, reading, pronunciation and grammar were observed and recorded by researcher herself. The classroom observation data were carried out with the help of an observation sheet classified into three themes: ownership, manipulation and purpose to use mobile devices for English upbringing.

3.6. Data analysis

3.6.1. *Quantitative data analysis*

The data from the questionnaires were collected analyzed using the SPSS version 20. To reduce the missing data, the data were thoroughly reviewed for any additional problems that occurred during the transfer or reformatting process. Furthermore, the Likert five scales were utilized to describe perception, indicating in the range from scale 1 to scale 5. As suggested by Kutner et al (2004), to read the significance of the results, descriptive analysis (SPSS) was calculated. The quantitative data analysis of questionnaire was computed for reliability, frequency, percentages, mean score and Standard Deviation (SD) of each statement. Before survey, the questionnaire was measured with a Cronbach Alpha value compared to the value of each section of questionnaire; the numbers of statements in each section and the whole questionnaire are reasonable to be carried out if the α parameter is greater than 0.6. For qualitative data from in-depth interview, semi-structured responses were screened and coded in themes and sub-themes relevant to questionnaire's clusters.

To begin with, three demographic questions were immediately calculated in Microsoft Excel to reveal the results and meaning of demographic information for both EFL teachers and students. The fundamental data is gathered to ensure that the individuals chosen are appropriate for the study's conditions and scope. From section two to section five, row figures were analyzed to gain mean values and standard deviations. The mean scores were dissected to examine EFL teachers' and students' attitudes and beliefs regarding using mobile devices, assess their view of abilities to use mobile technology, how easy teachers and students feel when using mobile devices; and understand their perceived usefulness and willingness to adapt English mobile teaching and learning under hi-tech technology's unpredictable progress. The mean scores were compared to level 3 among scale 1 to 5 for answer of questionnaire's statements. If mean is higher than 3, the idea is supported, yet contrasting if it is lower than 3.

Table 3.2. Quantitative data analysis

Research question	Data sources and 4 key factors	Analysis
1. What are university EFL teachers' perceptions of M-learning in English teaching and learning?	Section 1: Demographics	Microsoft Excel: tabulating numbers
2. What are university EFL students' perceptions of M-learning in English teaching and learning?	Section 2: EFL users' attitude toward the use (ATU)	- Statistical Package for Social Sciences (SPSS) - Cronbach Alpha - Mean scores, Standard Deviation
3. To what extent are university EFL teachers ready in perceived abilities to use M-learning in English teaching?	Section 3: EFL users' manipulation (M)	
4. To what extent are university EFL students ready in perceived abilities to use M-learning in English learning?	Section 4: EFL users' perceived usefulness (PU)	
	Section 5: EFL users' willingness to adapt to constant changes of mobile technology (WAC)	

3.6.2. Qualitative data analysis

3.6.2.1. In-depth interview analysis

In the current study, in-depth interview questions were used to elicit detailed responses to questions about attitudes and readiness of EFL teachers and students on the use of mobile devices in English teaching and learning. Furthermore, data was collected and analyzed using the following methods: Transcripts were double-checked for errors to ensure accuracy (Creswell, 2009) and coding was constructed into four themes equivalent to four key factors: attitudes toward using of mobile devices (AU), manipulation (M), perceived usefulness (PU), and willingness to adapt to constant changes of mobile technology (WAC) categorized by seven sub-themes: ownership, conception, expenditure, agreement, equipment, usefulness, and ability to use from

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responses of semi-structured interview questions. Besides, the frequencies of positive and negative responses were qualitatively dissected for seven sub-themes grouped in four key factors: (1) attitudes toward the use of mobile devices (ATU) divided in sub-themes of conception and agreement; (2) manipulation (M) addressed by expenditure and ability to use; (3) perceived usefulness (PU) elicited from conception and usefulness and (4) willingness to adapt to constant changes of mobile technology (WAC) dissected into ownership and ability to use.

Data analysis for the current study also adopted axial coding to get the context and relationships of themes (Pollara, 2011). According to Gibbs (2007), in order to assure trustworthiness, the audio recordings from the interviews were listened to several times and the transcripts were double-checked for accuracy. Furthermore, according to Creswell (2009), qualitative validity is ensured through the use of a variety of strategies, such as triangulating interview and observation data with qualitative data from questionnaire to build a justification for emergent themes; selecting participants to participate in in-depth interviews for accurate findings; and gaining alternative interpretations from qualitative analgesia.

The interview questions were designed in Vietnamese, however, the transcripts were translated into English for report. More specifically, in-depth interview answers were analyzed by frequent emergence of answers having similar themes.

3.6.2.2. Classroom observation analysis

As mentioned earlier, observation sheets were used to collect data from the English classes. The purpose of the observation was to assess their ability to own and use mobile devices in English teaching and learning. The observation focused on three factors: (1) mobile device ownership, (2) manipulation, and (3) mobile device usage purposes to generally address four key factors: ATU, M, PU and WAC mentioned above. The observation presented the checklists focusing EFL teachers' and students' activities on their mobile devices in EFL classrooms. The observational data was then qualitatively evaluated and explained to show the results.

In general, the qualitative analysis for both in-depth interview and classroom observation was used in the current study, and the analytical technique is summarized as follows:

Table 3.3. Qualitative data analysis

Research question	Data source	4 key factors	Theme coding	Data collection
1. What are university EFL teachers' perceptions of M-learning in English teaching and learning? 2. What are university EFL students' perceptions of M-learning in English teaching and learning?	In-depth interview	(1) Attitudes towards the use of mobile devices (ATU) (2) Manipulation (M)	- Ownership - Conception - Expenditure - Agreement - Equipment - Usefulness - Ability to use	Multiple reviews of audio interview transcripts
3. To what extent are university EFL teachers ready in perceived abilities to use M-learning in English teaching? 4. To what extent are university EFL students ready in perceived abilities to use M-learning in English learning?	Classroom observation	(3) Perceived usefulness (PU) (4) Willingness to adapt constant changes of mobile technology (WAC)	Mobile device ownership situation, Manipulation, Purposes to use mobile devices	Notes from observation sheets

3.6.3. Summary of data analysis

The research was guided by a mixed-methods approach. The study tools, including questionnaire, interview and class observation were triangulated. The data analysis process was summarized as follows:

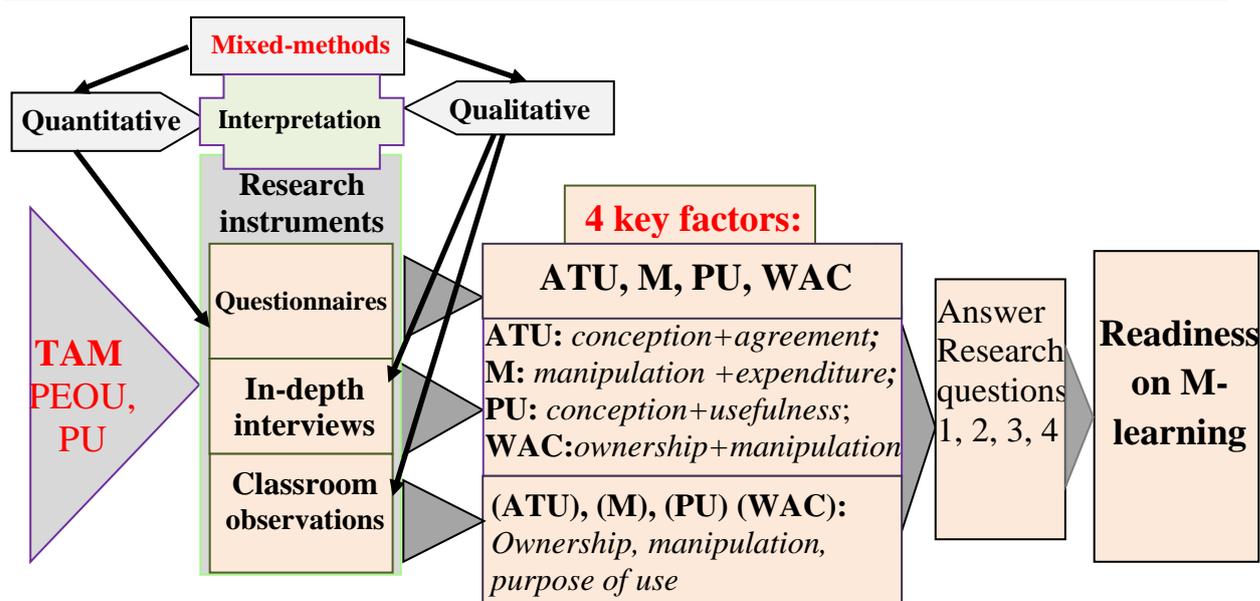


Figure 3.2: Research data analysis

3.7. Reliability and validity

The validity and reliability of the instruments are considered to be fundamental factors supplementing the trustworthiness of a research. This study, hence, deployed its in-depth interview's semi-structured questions and observations to triangulate the data collected from the questionnaire in order to minimize the risk of validity insufficiency. Additionally, the English version of the final questionnaire underwent numerous proofread, check, and recheck sessions conducted by two statisticians, five researchers, and 20 teachers of English to assess the reliability and avoid ambiguity.

The Statistical Package for Social Sciences (SPSS) version 20 was applied for quantitative data analysis of the questionnaire in terms of the statistics for reliability, frequency, percentage, and mean score of each statement. Before conducting the survey, the questionnaire was measured with a Cronbach Alpha value of higher than 0.6. For qualitative data from the in-depth interview, the semi-structured responses were screened and coded in sub-categories relevant to the questionnaire's clusters (to be presented in the next chapter). Cronbach's Alpha and Descriptive Analysis algorithm were utilized in the current study to assess the reliability of its findings (Saunders et al., 2009).

Furthermore, the research validity was strengthened in the category of data trustworthiness (Mishler, 2000). The researcher was aware of the use of authentic

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views and opinions given by the respondents and thus must not falsely convey the participants' intentions. The researcher was also aware that the interpretation and conclusions or claims must be supported with different quoted and illustrated sources of data.

The pilot questionnaire demonstrated considerable reliability given the positive Cronbach's Alpha values of sections 1, 2, 3, and 4, which respectively were .895, .821, .856, and .871 respectively. As for its translated version, the questionnaire was subjected to linguistic modification for the equivalence of terms to ensure intelligibility and clarity.

Finally, the official questionnaires were delivered to the participating 69 EFL teachers and 300 EFL students with the same number of responses in return. The Cronbach's alpha values of the four questionnaire sections were .895, .821, .856, and .871, greater than 0.6, which was the acceptable coefficient value as Nunnally (1978) claimed. None of the 59 items was excluded for data processing because none of them performed negative Correlated Item - Total Correlation with no item deleted, in which the Cronbach's alpha of the first section achieved the highest value of .895. The meaningful values of Cronbach's alpha proved the internal consistency, validity, and suitability of the responses collected to the issues addressed.

3.8. Research ethics

It is critical to adhere to the ethical issue in research (Resnik, 2020). To begin with, research ethics promotes research goals such as knowledge, truth, and error avoidance. Second, research ethics was created to safeguard intellectual property rights while encouraging collaboration through authorship norms, copyright and patenting policies, data sharing regulations, and peer review confidentiality restrictions. The third ethical factor was to ensure that researchers, such as government policies on research misconduct, conflicts of interest, human subject protections, and animal care and usage could be held accountable to the public. Fourth, it is to contribute to public acceptance of the quality and integrity of the research. Finally, it can greatly improve the safety of human and animal subjects, students, and the general public. Furthermore, Shamoo and Resnik (2015) state that this study was conducted with ethics in mind, citing principles such as honesty, openness, integrity, carefulness,

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respect for intellectual property, confidentiality, responsible publication, responsible mentoring, respect for colleagues, social responsibility, nondiscrimination, competence, legality, animal care, and human subsistence.

In this study, all of the above factors were taken into account to meet the requirements of honesty and carefulness. First, the participants were recruited on a voluntary basis with the use of a consent form (appendix 7). Besides, bias was avoided at all costs in the construction of questionnaires and in-depth interview questions for both EFL teachers and students, which were carefully chosen and prepared. As a result, data collection and analysis were done in a serious manner and using sound study methods. Furthermore, participants' personal information, research site, and financial information were kept confidential in order to respect the research participants. Furthermore, scientific publications relevant to the thesis should be published in specialized and reputable journals and conferences around the world that have undergone peer review to ensure the author's intellectual property, competence, and legality. Declare any personal or financial interests that may have an impact on the research.

To ensure accuracy and quality, the survey process and data collecting were carried out meticulously and carefully. Participants in the study were also carefully chosen based on the thesis' relevant conditions and criteria; nonetheless, discrimination based on gender, age, ethnicity, qualifications, level, or economic lawsuits was strictly avoided. Their voluntary involvement was much welcomed. Finally, the name of the study site was kept confidential to avoid any infringement.

3.9. Summary

An overview of the research design was presented in this chapter. The mixed methods approach was adopted for the current study together with the methodological triangulation from the three tools, namely questionnaire, in-depth interview, and class observation to examine the readiness of EFL teachers and students for M-learning. The next chapter will disclose and discuss the study's findings.

CHAPTER FOUR: RESEARCH RESULTS

This chapter presents the findings of the study with data collected from questionnaire, in-depth interview and classroom observation. To follow Creswell and Clark’s (2007) triangulation paradigm, quantitative data and qualitative data are extracted to interpret the research findings for four key factors: (1) attitudes toward use (ATU), (2) abilities to use or manipulation (M), (3) perceived ease of use (PEOU), (4) usefulness percept and willingness to adapt mobile technology (WAC) in English teaching and learning. Before the results are displayed, the units of analysis are presented here to guide the presentation of the findings.

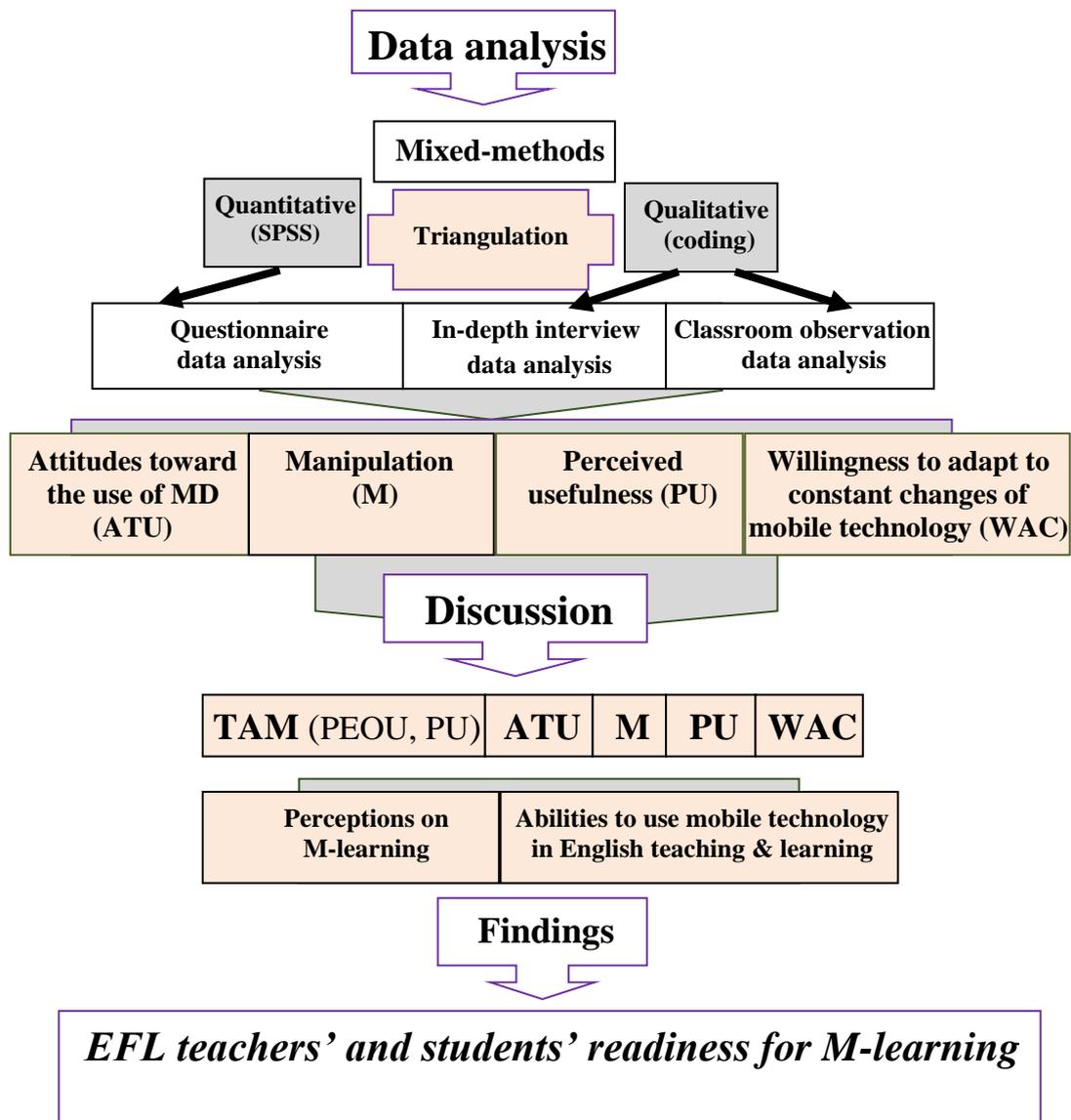


Figure 4.1. Outline of research analysis and findings

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4.1. Data analysis

4.1.1. Results from the questionnaire

4.1.1.1. Demographics of EFL teachers and students

Before the findings are displayed, it is necessary to present the profile of the respondents, which is summarized in Table 4.1 below.

Table 4.1. Profile of respondents

Gen-der	EFL students (N=300)		EFL teachers (N=69)		Age				Teaching experience (years)			
	Partici-pants	Percentage	Partici-pants	Percentage of total	25-35	36-45	46-55	56-62	2-10	11-20	21-30	31-40
Male	157	52.3%	12	17.3%	2	5	2	3	4	3	3	2
Female	143	47.7%	57	82.6%	12	18	17	10	6	25	21	5

None of the answers to the gender question were missing. The ratio of male and female lecturers, on the one hand, was roughly equal, which was done on purpose to assess how representative both male and female students' perceptions and attitudes were. On the other hand, the students were chosen at random from 20 different majors, namely Economics, Business administration, Finance, Environment science, Primary education, Primary education, Preschool education, Fine arts, Mathematics education, Physics pedagogy, Chemistry pedagogy, Biology pedagogy, Literature pedagogy, History pedagogy, Geography pedagogy, Psychology, and Politics. Fifteen sophomores from each major who were learning English as a foreign language at the time were randomly selected as participants for the study. With the aforementioned sampling technique comprising a total of 300 students, in which 15 students from each of the 20 majors were chosen, the study aims to determine the EFL students' perceptions of M-learning in the most representative way.

4.1.1.2. EFL teachers' and students' ownership of mobile devices

Information regarding the teachers' and students' ownership of mobile devices collected from the questionnaires is presented in Table 4.2 below.

Table 4.2. EFL teachers’ and students’ mobile device ownership

Mobile devices	EFL students		EFL teachers	
	Number of Respondents	Percentage of each mobile device ownership	Number of Respondents	Percentage of each mobile device ownership
Smart phones	300	100%	69	100%
Laptops	265	88.3%	24	34.8%
Tablets	78	26%	18	26%

As observed from Table 4.2, all of the participating students and teachers claimed to use smart phones in their daily life, with a large percentage of them stating that they also utilized at least one laptop, iPad, or tablet. Moreover, a number of participants reported owning several different devices, such as smart phones, laptops, iPad, tablets, etc. All of the teachers and students reported that they can use mobile technology in studying and working, and that they own and use at least one mobile device to connect to the wireless network. In addition, 248 students (82.7%) stated that they owned tablets from well-known and top-of-the-line brands such as iPad Mini 79-inch Wi-Fi cellular 64GB (2019), Samsung Tab A8 (2019), Samsung Tab A, Samsung Galaxy Tab A8 SPen, Huawei Mediapad T5, Lenovo Tab 4, and others.

4.1.1.3. Reliability statistics for both EFL teacher and student questionnaires

The reliability statistics of the five sections/clusters of the two questionnaires for EFL teachers and students were calculated. The obtained Cronbach's Alpha algorithm is displayed in Tables 4.3 and 4.4.

Table 4.3. Reliability Statistics for each cluster of both EFL teachers’ and students’ questionnaires

Sections	Cronbach’s Alpha	N of Items
Section 2	.895	19
Section 3	.821	12
Section 4	.856	13
Section 5	.871	15

Table 4.4. Reliability Statistics for both EFL teachers' and students' questionnaires

Questionnaire	Cronbach's Alpha	N of Items
For EFL teachers	.812	59
For EFL students	.812	59

The data collected from sections 2 to 5 were analyzed to determine the participants' perceptions of learning English via mobile devices. Respectively, the Cronbach's Alpha values calculated were 0.895, 0.821, 0.856, and 0.871. Similarly, the value for the teachers' and students' questionnaires was 0.812 more than 0.6 which reflects the number of items in each cluster of questionnaires acceptable and reliable for the continuous survey. Clearly, the data above show that the statements in each section of the questionnaires are appropriate and reliable for the study.

Besides, the mean scores for all the clusters were computed for comparison as presented in the following table.

Table 4.5. Summary of mean scores of teachers' and students' questionnaires

Sections	Mean scores	
	Teachers	Students
Section 1: Attitudes towards the using (ATU) of mobile devices in English learning	3.95	3.86
Section 2: Manipulation (M) on mobile devices for English learning	3.76	4.01
Section 3: Perceived usefulness (PU) of mobile devices to learn English	3.21	3.69
Section 4: Willingness to adapt to constant changes of mobile technology (WAC) for English learning	3.74	3.87

As can be seen from Table 4.5, all the clusters achieved high mean values, indicating high agreement of both groups of teachers and students to the items in the clusters. There was not much discrepancy in the all clusters except the group on manipulation on mobile devices for English learning in which the mean score for teachers' responses reached 4.01 whereas that for students' stood at 3.76.

To be more specific, Table 4.6 below presents the values for each statement in the cluster about the teachers' attitudes towards the use of mobile devices in teaching English.

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4.1.1.4. EFL teachers' perceptions of the use of mobile devices in teaching English

Table 4.6. Teachers' perceptions of the use of mobile devices in English teaching

No.	Statements	Mini- mum	Maxi- mum	Mean 3.95	SD
1.	I find it more engaging when I teach English through mobile devices.	1.00	5.00	3.85	0.88
2.	When I conduct my English classes through mobile devices, I communicate with my students more frequently.	1.00	5.00	3.94	0.97
3.	There are more in-class interactions owing to the use of mobile devices.	1.00	5.00	3.84	0.96
4.	I am more likely to exchange experiences with my colleagues owing to the use of mobile devices.	1.00	5.00	3.91	1.03
5.	Learning English through mobile devices stimulates my students' autonomous learning.	1.00	5.00	4.04	0.83
6.	Mobile devices are useful for teaching English grammar.	1.00	5.00	4.11	0.93
7.	Mobile devices are useful for teaching English vocabulary.	1.00	5.00	4.07	0.93
8.	Mobile devices are useful for teaching English pronunciation.	1.00	5.00	3.84	0.93
9.	Mobile devices are useful for teaching English listening skill.	1.00	5.00	3.86	0.89
10.	Mobile devices are useful for teaching English writing skill.	1.00	5.00	3.88	0.78
11.	Mobile devices are useful for teaching English speaking skill.	2.00	5.00	4.21	0.74
12.	Mobile devices are useful for teaching English reading skill.	2.00	5.00	4.01	0.69
13.	The use of mobile devices can enhance spoken interactions in the English classroom.	1.00	5.00	3.85	1.02
14.	The use of mobile devices can enhance students'	1.00	5.00	3.85	0.96

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	mutual collaboration in the English classroom.				
15.	Mobile devices should be allowed as a fundamental English teaching tool.	3.00	5.00	4.24	0.65
16.	The use of mobile devices should be further encouraged in English learning.	2.00	5.00	4.13	0.64
17.	By learning English through mobile devices, the students' sense of initiative is noticeably increased.	2.00	5.00	4.07	0.75
18.	The use of mobile devices in the English classroom makes the lessons more effective and engaging.	1.00	5.00	3.59	1.15
19.	M-learning should be effectively incorporated into my English teaching.	1.00	5.00	3.82	1.06

Table 4.6 depicts the discrepancies in the participants' opinions of the usage of mobile devices in English teaching. It is obvious that among the 19 statements, there was a consistently high agreement throughout the mean scores, at 3.95, which is higher than 3. This value indicates that the majority of the EFL teachers approved the use of mobile devices in English instruction. The mean scores recorded also reflected the participants' willingness to engage, communicate, and interact more in class as a result of the employment of mobile technology in the EFL classroom. Similarly, mobile devices were regarded as fundamental instruments for enhancing students' English foundational skills and knowledge, as well as their learning autonomy, mutual collaboration, and sense of initiative. With the highest mean score of 4.11, the EFL teachers remarkably appreciated the usefulness of mobile devices in their English grammar teaching.

From Table 4.5, it can also be observed that in statements 15, 16, and 17, the SD values were relatively low, standing at 0.65, 0.64, and 0.75, which showed that the EFL teachers tended to choose answers with apparently similar attitudes towards the use of mobile devices in their English teaching.

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4.1.1.5. EFL students' perceptions of the use of mobile devices in learning English

Table 4.7. EFL students' perceptions of the use of mobile devices in English learning

No.	Statements	Mini - mum	Maxi- mum	Mean 3.86	SD
1	I am more engaged in the lessons when learning English through mobile devices.	1.00	5.00	3.70	0.90
2	I communicate more with my teacher and classmates when learning English through mobile devices.	1.00	5.00	3.76	0.93
3	Thanks to mobile devices, I can interact more with the teacher.	1.00	5.00	3.74	0.96
4	Thanks to mobile devices, I can interact more with my classmates.	1.00	5.00	3.82	0.89
5	Learning English through mobile devices helps my learning more autonomous.	1.00	5.00	3.87	0.86
6	Mobile devices are useful for learning English grammar.	1.00	5.00	4.02	0.75
7	Mobile devices are useful for learning English vocabulary.	1.00	5.00	4.02	0.83
8	Mobile devices are useful for learning English pronunciation.	1.00	5.00	3.81	0.84
9	Mobile devices are useful for learning English listening skill.	1.00	5.00	3.80	0.89
10	Mobile devices are useful for learning English writing skill.	1.00	5.00	3.92	0.79
11	Mobile devices are useful for learning English speaking skill.	1.00	5.00	4.15	0.70
12	Mobile devices are useful for learning English reading skill.	1.00	5.00	4.04	0.69
13	The use of mobile devices can enhance peer interaction in English learning.	1.00	5.00	3.81	0.86

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14	The use of mobile devices can enhance mutual collaboration in the English classroom.	1.00	5.00	3.80	0.85
15	The use of mobile devices should be allowed as a learning English tool.	1.00	5.00	4.00	0.75
16	The use of mobile devices should be encouraged in English learning.	1.00	5.00	4.04	0.81
17	By learning English through mobile devices, I can improve my sense of initiative.	1.00	5.00	3.87	0.85
18	The use of mobile devices in the English classroom makes the lessons more effective and engaging.	1.00	5.00	3.96	0.75
19	M-learning should be effectively incorporated into my English learning.	1.00	5.00	4.00	0.79

As observed from Table 4.7, the students' agreements and strong agreements with the listed items achieve an average mean score of higher than 3 (3.86), indicating that the EFL students supported the use of mobile devices in their English study. The students admitted that they are capable of using mobile devices to learn English independently, to participate in classroom activities, to communicate with their peers, to engage in the lesson, and to collaborate in group works (respectively, the mean values are 3.70, 3.76, 3.74, 3.82, and 3.87). The students, in particular, highly agreed that mobile devices should be used in English classes as these are useful instruments for developing the four essential English skills, namely listening, speaking, reading, and writing (M=3.80, 3.92, and 4.04), as well as foundational knowledge like grammar, vocabulary, and pronunciation (M=4.02, 3.81). Especially, learning speaking skills through virtual portable platforms was appreciated with the greatest mean score of 4.15. Furthermore, the majority of the students positively evaluated mobile devices as having the capability of making the lessons more effective (M=3.96) because they promoted the learners' self-motivated learning (M=3.87) and stimulated their interaction, collaboration in English classes (M=3.81, 3.80). Thus, the student users hoped that the teacher would encourage the use of mobile devices in class as they are bound to become helpful learning tools (M=4.00, 4.04). Moreover, according to the statistics in Table 4.7, the majority of students who could be potential users of

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mobile technology had a tendency to use mobile devices in English learning in the time to come.

Also, Table 4.7 indicates that there were no significant gaps between the chosen scales when all of the SD values were relatively low. Specifically, statements 6, 15, and 18 achieved the same lowest SD value of 0.75. This suggests that the students expected to learn English using mobile devices under a wireless network.

4.1.1.6. EFL teachers' manipulation of mobile devices in teaching English

Data obtained from the questionnaire regarding this cluster is presented in Table 4.8.

Table 4.8. EFL teachers' manipulation of mobile devices in teaching English

No.	Statements	Mini mum	Maxi mum	Mean 3.76	SD
20.	With mobile devices, I can take notes, set reminders, make phone calls, send messages, take photos, videos, recordings, etc. when teaching English.	1.00	5.00	3.79	1.01
21.	With mobile devices, I can make use of many social platforms like Facebook, Zalo, Line, WeChat, WhatsApp, blogs, etc. to keep in touch with my students and colleagues.	1.00	5.00	3.63	0.99
22.	With mobile devices, I have access to many online teaching materials such as online games, electronic lectures, sample lesson plans, etc. to support my English teaching.	1.00	5.00	3.85	0.97
23.	I can use mobile devices anytime and anywhere, with or without the internet, as a handy tool for English teaching.	1.00	5.00	3.76	1.11
24.	I am capable of utilizing the mobile devices' smart functions to conduct various in-class activities.	1.00	5.00	4.10	1.04
25.	I can single-handedly solve a number of technical errors on mobile devices like standstill, slow-running apps, unresponsive screen, etc.	1.00	5.00	3.85	1.12

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26.	I usually look through my mobile devices' installation parts to look for any possible technical errors and take immediate action.	1.00	5.00	3.28	1.36
27.	I keep the programs and applications on my mobile devices up-to-date for teaching purposes.	1.00	5.00	3.56	1.17
28.	I constantly keep up with the ever-changing trends of technology to serve teaching purposes.	1.00	5.00	3.60	1.10
29.	I am confident in using the new features of my mobile devices for English teaching with my up-to-date technical knowledge.	1.00	5.00	3.89	0.97
30.	I am confident in using my mobile devices' new features for English teaching with my up-to-date experience of using portable technology.	1.00	5.00	3.75	1.13
31.	I look forward to having newly-developed technological innovations installed on my mobile devices to serve my English teaching.	1.00	5.00	4.00	0.95

As seen from the table, the mean score for this cluster of EFL teachers' manipulation of mobile devices in teaching English achieves an average mean score of 3.76. A notable mean value of 4.10 was recorded regarding the teachers' claims of how well they are capable of utilizing their mobile devices' smart functions to conduct a variety of classroom activities. Additionally, the statement chosen by teachers saying that they were able to manifest the multi-functionality of mobile devices in teaching and in everyday life registered a mean score of 3.85. The respective mean scores of 3.76, 3.28, and 3.85 illustrate the teachers' capability of using mobile devices to support their online and offline English teaching, of exploring these devices' features and installation software, and of repairing a number of technical errors without the help of experts. The teachers also reported that they were able to adapt to the constant changes of mobile technology (M=3.89) thanks to their up-to-date knowledge and experiences of using mobile devices (M=3.75). The EFL teachers demonstrated their ability to confidently make use of these devices' functions and showed their expectations of teaching English through mobile technology (M=4.00). Similarly, the

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participants said that they could thoughtfully adjust to the constant changes of new technology as it evolved on a daily basis. In general, the recorded data indicate that the majority of teacher-users had the ability to modify and keep up with new mobile technology changes.

With the insignificant SD values from 0.95 to 1.36 as shown in Table 4.7, the EFL teachers' answers for the given statements did not show much difference regarding their perspectives. Typically, statements 21, 22, 26 and 31 with SD values of 0.99, 0.97, 0.97 and 0.95 respectively suggest that the majority of teachers admitted they could manipulate mobile devices to support their English teaching.

4.1.1.7. EFL students' manipulation of mobile devices for English learning

Table 4.9. EFL students' manipulation of mobile devices for English learning

No.	Statements	Mini- mum	Maxi- mum	Mean 4.01	SD
20.	With mobile devices, I can take notes, set reminders, make phone calls, send messages, take photos, videos, recordings, etc. when learning English.	1.00	5.00	4.09	0.78
21.	With mobile devices, I can make use of many social platforms like Facebook, Zalo, Line, WeChat, WhatsApp, blogs, etc. to keep in touch with my teacher and classmates.	1.00	5.00	4.01	0.85
22.	I can use mobile devices to access online game websites, electronic lectures, and online learning classrooms to support my English learning.	1.00	5.00	4.12	0.74
23.	I can use mobile devices anytime and anywhere, with or without the internet, as a handy tool for English learning.	1.00	5.00	4.10	0.74
24.	I am capable of utilizing the mobile devices' smart functions to join in various in-class activities.	1.00	5.00	4.18	0.72
25.	I can single-handedly solve a number of technical errors on mobile devices like standstill, slow-running apps, unresponsive screen, etc.	1.00	5.00	3.99	0.81

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26.	I usually look through my mobile devices' installation parts to look for any possible technical errors and look for solutions.	1.00	5.00	4.04	0.81
27.	I keep the programs and applications on my mobile devices up-to-date.	1.00	5.00	3.89	0.86
28.	I constantly keep up with the ever-changing trends of technology to serve learning purposes.	1.00	5.00	3.95	0.78
29.	I am confident in using the new features of my mobile devices for English learning with my up-to-date technical knowledge.	1.00	5.00	3.93	0.81
30.	I am confident in using my mobile devices' new features for English learning with my up-to-date experience of using portable technology.	1.00	5.00	3.85	0.82
31.	I look forward to having newly-developed technological innovations installed on my mobile devices to serve my English learning.	1.00	5.00	4.01	0.82

The above table gives information about the EFL students' manipulation of mobile devices. The learners overall reported being able to use mobile technology without difficulty (average $M=4.01$). Besides, student-users can implement the many functions of mobile devices' to serve their daily and hobby activities, $M=4.09$, 4.01 , and 4.12 . Noticeably, similarly to EFL teachers, the students proved that they had enough competency to skillfully explore and utilize the advanced functions of their mobile devices to support their English learning anytime and anywhere, regardless of internet connection with the highest mean score of 4.18 and 4.10 . They agreed that they had the ability to explore advanced features in installation, to update the programs and applications, and to repair technical errors on their own without experts' assistance ($M=3.99$, 4.04 , 3.89 , respectively). Moreover, students seemed to be self-confident in catching up with the constant technological changes using their up-to-date technical knowledge and experiences of using portable devices ($M=3.95$, 3.93 , and 3.85). Therefore, student-users tended to enjoy mobile technological innovation on their handy devices.

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In general, the EFL students demonstrated their ability to use and harness mobile devices' smart functions for their English learning. This was proved when all of the SD values calculated are rather low. For example, the SD indices are at 0.72 only for statement 24, and at 0.74 for statements 23 and 24.

4.1.1.8. EFL teachers' perceived usefulness of mobile devices to teach English

Table 4.10. EFL teachers' perceived usefulness of mobile devices to teach English

No.	Statements	Mini- mum	Maxi- mum	Mean <i>3.21</i>	SD
32.	It is quite effortless to learn how to use mobile devices in English teaching.	1.00	5.00	3.49	1.28
33.	Teaching English on a multi-functional mobile device does not pose much difficulty.	1.00	5.00	3.72	1.14
34.	It is easy to engage in in-class discussions using a mobile application or mobile-formatted website.	1.00	5.00	3.72	1.08
35.	It is easy to deliver English lectures through mobile devices anytime and anywhere.	1.00	5.00	3.73	1.26
36.	It is easy to complete all of the objectives of an English course using mobile devices.	1.00	5.00	3.59	1.23
37.	It is easy to manipulate mobile devices for English lessons.	1.00	5.00	3.47	1.29
38.	I am able to use mobile devices to access the English courses' contents.	1.00	5.00	3.46	1.30
39.	I am confident in using mobile devices for teaching the essential English skills and knowledge.	1.00	5.00	3.69	1.19
40.	I would like to learn more about mobile applications to incorporate them into the English classroom.	1.00	5.00	3.85	1.10
41.	The expense of using mobile devices for teaching English is costly.	1.00	5.00	2.30	1.28
42.	The expense of internet connection on mobile devices is costly.	1.00	5.00	2.36	1.18
43.	The expense of online English teaching materials is costly.	1.00	5.00	2.31	1.22
44.	Mobile devices make it difficult for me to manage my English classes.	1.00	5.00	2.07	1.09

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The figures as shown above depict the EFL instructors' perceived usefulness regarding using mobile devices to teach English. The achieved average mean value is 3.21 for all 13 statements, higher than 3, which indicates that the participants had a favorable opinion of the ease of use of the handy hi-tech equipment in their English instruction. The participants were almost unconcerned about the problems of controlling activities on multi-functional mobile devices for English teaching (M=3.72, 3.47) because it did not require much effort from the users (M=3.49), for organizing discussions (M=3.72), for delivering English lectures (M=3.73), and for completing tasks (M=3.59). This shows that the EFL teachers were quite confident in accessing English courses (M=3.46) and teaching the essential language skills and knowledge (M=3.69). Therefore, teachers tended to integrate a variety of mobile applications to support their English teaching (M=3.85).

In general, teachers seemed to believe that it was simple to implement mobile devices into their teaching sessions. However, the majority of the instructors stood opposed to the thought of spending a large sum of money to own buy a mobile device and to deliver their classes on such devices (M=2.30, 2.36, 2.31, and 2.07).

As seen from Table 4.10, the SD values range from 1.08 to 1.28, showing that the values of the scales chosen by the EFL teachers are pretty concentrated in all statements. Especially in the statements 34, 40, and 44, the SD value is low with 1.08, 1.10 and 1.09, respectively. Similarly, in statements 41, 42, 43, and 44, the respondents chose scales nearly approximate to each other, which stood at levels 1 and 2 for SD, greater than 1. That goes to indicate that the EFL instructors appreciated the usefulness of mobile devices and their highly complex and modern features.

4.1.1.9. EFL students' perceived usefulness of mobile devices to learn English

Table 4.11. EFL students' perceived usefulness of mobile devices

No.	Statement	Mini-mum	Maxi-mum	Mean 3.69	SD
32.	It is quite effortless to learn how to use mobile devices in learning English.	1.00	5.00	3.54	1.04
33.	Learning English on a multi-functional mobile device does not pose much difficulty.	1.00	5.00	3.77	0.87

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34.	It is easy to engage in group work discussions using a mobile application or mobile-formatted website.	1.00	5.00	3.83	0.86
35.	It is easy to participate in in-class activities through mobile devices anytime and anywhere.	1.00	5.00	3.96	0.78
36.	It is easy to fulfill all of the assignments throughout an English course through mobile devices.	1.00	5.00	3.86	0.80
37.	It is easy to manipulate mobile devices in the English classroom.	1.00	5.00	3.92	0.75
38.	I am able to use mobile devices to access the English courses' contents.	1.00	5.00	3.88	0.78
39.	I am confident in using mobile devices for practicing the essential English skills and knowledge.	1.00	5.00	3.91	0.81
40.	I would like to learn more about mobile applications to further engage in the lessons.	1.00	5.00	3.98	0.81
41.	The expense of using mobile devices for learning English is costly.	1.00	5.00	2.51	1.30
42.	The expense of internet connection on mobile devices is costly.	1.00	5.00	2.62	1.25
43.	The expense of online English learning materials is costly.	1.00	5.00	2.44	1.26
44.	Mobile devices make it difficult for me to learn my English lessons.	1.00	5.00	2.42	1.19

Table 11 above reports the EFL students' opinions on how easy it was to learn English using mobile devices (M= 3.69). As seen, the student-users acknowledged the simplicity with which mobile devices might be used via a wireless network (M=3.54, 3.77). The participants indicated that they were well capable of using smart roaming devices for learning English (M=3.92), for engaging in discussions (M=3.83), for approaching learning materials (M=3.96), for completing tasks (M=3.86), and for evaluating their English courses (M=3.88). Therefore, it was not difficult for EFL students to practice English skills and knowledge (M=3.91). Moreover, learners were likely to combine the many complex applications for English learning. Nonetheless,

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the insensitivity of a few students was recorded at the mean scores of 2.41, 2.64, 2.62, 2.64, quite lower than 3, indicating that the majority of participants did not think that the cost of a mobile devices is overwhelmingly expensive.

With the low SD values (from 0.75 to 1.30), the results indicate that the levels of agreement in the answers that the students chose did not show much difference. The students tended to recognize the mobile technology's usefulness in their English learning. Given the convergence of scales 1 and 2 that most students chose for statements 41, 42, 43, and 44, the majority of them disagreed that the cost of owning mobile devices, Wi-Fi, and online documents was expensive.

4.1.1.10. EFL teachers' willingness to adapt to the constant changes of mobile technology

Table 4.12. EFL teachers' willingness to adapt to constant changes of mobile technology

No.	Statements	Mini- mum	Maxi- mum	Mea- n 3.74	SD
45.	I am capable of using mobile devices for English teaching purposes.	1.00	5.00	3.85	1.06
46.	I am interested in teaching English through mobile devices.	1.00	5.00	3.82	1.04
47.	I am capable of teaching English anytime and anywhere through mobile devices.	1.00	5.00	3.69	1.19
48.	I would like to keep in touch with my students anytime on the internet to support their learning.	1.00	5.00	3.79	1.15
49.	I would like to contact my colleagues anytime on the internet to exchange our experiences on class management, material preparation, learning problems, in-class activities, etc.	1.00	5.00	4.01	0.98
50.	I would like mobile learning to be integrated into my English classes.	1.00	5.00	3.72	1.06
51.	I would like to easily view my English course materials (i.e., syllabus, notes, assignments) on mobile devices.	1.00	5.00	3.75	1.18

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52.	I am willing to pay the expenses of mobile devices (i.e., buying expenses, maintenance, internet connection, etc.) for English teaching purposes.	1.00	5.00	3.73	1.11
53.	Mobile devices are necessary tools for me to keep in touch with my colleagues and students outside the classroom.	1.00	5.00	3.86	1.03
54.	Mobile learning facilitates my English teaching with comfort.	1.00	5.00	3.62	1.31
55.	I am more motivated when teaching English through mobile devices.	1.00	5.00	3.52	1.36
56.	Teaching English through mobile learning helps me effectively deliver my lessons.	1.00	5.00	3.68	1.28
57.	Teaching English through mobile devices provides me with a lot of excitement.	1.00	5.00	3.73	1.15
58.	I am ready to adapt to the changes of modern mobile technology for English teaching purposes.	1.00	5.00	3.60	1.33
59.	I look forward to teaching English fully through mobile devices.	1.00	5.00	3.75	1.26

Table 4.12 depicts the teachers' willingness to adapt to constant changes of mobile technology ($M= 3.74$). The EFL teachers believed M-learning was useful and they were willing to apply it into their classrooms. The mean scores of 3.85, 3.82, 3.69, 3.79, and 4.01 showed that most of the teachers believed that using mobile devices for English is acceptable ($M=3.85, 3.82$). They acknowledged that mobile devices are useful instruments with a plethora of smart capabilities that assist their activities inside and outside of the classroom ($M=3.69$), such as teaching ($M=3.79$), keeping contacts ($M=4.01$), establishing communication, looking up resources, conducting lecture compilations, and so on (mean= $3.72, 3.75$). As a result, they were willing to pay the costs of owning smart portable devices and conducting mobile teaching ($M=3.73$) because they wanted to deliver their lessons with the use of mobile devices in their English classes ($M=3.86, 3.62$). The EFL teachers also stated that they accepted the continuous development of modern mobile technologies that took place

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on a daily basis ($M=3.73$). Clearly, this indicated that the teachers were confident and prepared to adapt to up-to-date portable technology in their English classes. Therefore, they tended to enjoy teaching English through mobile devices ($M=3.60, 3.75$).

In general, most EFL teachers chose their answers with a quite similar scale to one another for the statements given. In particular, the SD score stood at 0.98 for statement 49, which implied that the EFL teachers were in a position to adapt to the ever-changing changes of mobile technology with their knowledge and experience of using mobile technology.

4.1.1.11. EFL students' willingness to adapt to the constant changes of mobile technology

Table 4.13. EFL students' willingness to adapt to the constant changes of mobile technology

No.	Statements	Mini- mum	Maxi- - mum	Mean 3.87	SD
45.	I am capable of using mobile devices for English learning purposes.	1.00	5.00	3.86	0.81
46.	I am interested in learning English through mobile devices.	1.00	5.00	3.68	0.91
47.	I am capable of learning English anytime and anywhere through mobile devices.	1.00	5.00	3.85	0.86
48.	I would like to keep in touch with my teacher anytime on the internet to ask about the lessons.	1.00	5.00	3.87	0.85
49.	I would like to contact my classmates anytime on the internet to exchange about afterschool tasks, assignments, materials, learning problems, etc.	1.00	5.00	3.92	0.83
50.	I would like mobile learning to be integrated into my English classes.	1.00	5.00	3.90	0.80
51.	I would like to easily view my English course materials (i.e., syllabus, notes, assignments) on my mobile devices.	1.00	5.00	3.97	0.79

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52.	I am willing to pay the expenses of mobile devices (i.e., buying expenses, maintenance, internet connection, etc.) for English learning purposes.	1.00	5.00	3.77	0.89
53.	Mobile devices are necessary tools for me to keep in touch with my teacher and classmates outside the classroom.	1.00	5.00	3.91	0.81
54.	Mobile learning facilitates my English learning with comfort.	1.00	5.00	3.91	0.81
55.	I am more motivated when learning English through mobile devices.	1.00	5.00	3.84	0.88
56.	Learning English through mobile learning effectively helps me improve my English.	1.00	5.00	3.91	0.81
57.	Learning English through mobile devices provides me with a lot of excitement.	1.00	5.00	3.89	0.85
58.	I am ready to adapt to the changes of modern mobile technology for English learning purposes.	1.00	5.00	3.85	0.85
59.	I look forward to learning English fully through mobile devices.	1.00	5.00	3.96	0.83

Table 4.13 shows how valuable mobile technology is to EFL students and how eager they are to adjust their learning to it (M=3.87). The majority of students valued mobile devices in their English learning (M=3.86; 3.68) due to the fact that their smart features allowed them to learn English whenever and wherever they wanted (M=3.85; 3.87). Mobile devices were also perceived as beneficial instruments that might help the students with their learning, keeping contact, establishing communication, and finding materials, among other things (M=3.92, 3.90, 3.97, 3.91). Furthermore, owing to the benefits of mobile technology in their learning, the student-users were willing to pay the costs of owning mobile devices (M=3.77). Students were seemingly enthusiastic about incorporating mobile devices (M=3.89) as learning tools to motivate (M=3.84) and improve their English studies (M=3.91). They demonstrated their willingness to adapt to the constant developments in mobile technology happening on a daily basis (M=3.85). In sum, the data indicated that the EFL students were enthusiastic about (M=3.96) and

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willing to incorporate new mobile technologies into their English studies.

With confidence in their knowledge and experience in handling mobile devices, most students tended to be willing to adapt to new wireless technology that is constantly changing amidst the modern technology era. The SD values of the statements from 45 to 59 were relatively low, with all of them being less than 1.

In conclusion, the survey results reported that by using mobile technology, all of the EFL teachers and students were able to engage in constructive English teaching and learning. They agreed that the cost of English mobile learning was not prohibitive. Mobile devices were handy and simple to use, according to both the EFL teachers and students. In general, both teachers and students perceived mobile devices to be useful and stated that it was reasonable to pay for M-learning expenses. For all of the abovementioned reasons, they tended to be willing to adapt to using modern mobile devices.

The analysis of the EFL teachers' and students' questionnaires focused on finding the following four key points: (1) attitudes towards the use of mobile devices, (2) manipulation of mobile devices, (3) perceived usefulness of mobile devices, and (4) willingness to adapt constant changes of mobile technology in English teaching and learning. The results showed that the mean scores of both questionnaires ranged from 3.46 to 4.24 and were higher than the value of 3 in almost all statements. This finding indicated that most of the EFL teachers and students had a tendency to have positive attitudes and support the use of mobile devices in teaching and learning English. They seemed to be able to use the highly complex functions of mobile technology to serve their English teaching and learning fluently. Besides, the EFL teachers and students tended to have the same negative opinion that the expenditure of English teaching and learning through mobile devices in under WI-FI network was expensive according to the statements regarding the negative consequences, with the mean scores lower than 3: M=2.30, 2.36, 2.31, 2.07 for statements 41, 42, 43 and 44 for teachers, and M=2.51, 2.62, 2.44, 2.4 for the same statements of the students' questionnaire.

In general, the EFL teachers and students shared their positive attitudes and perceptions regarding using mobile devices amid the wave of modern wireless technology. They tended to appreciate the usefulness of wireless devices' smart

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functions, which supported their English teaching and learning well. The users reported being confident in using and manipulating mobile devices to handle technical errors themselves during use. Furthermore, the analysis indicated that the participants seemed to have solid ability to adapt to the constant changes of mobile technology to self-exploit and serve their teaching and learning well the technological revolution.

While most of the similarities between EFL teachers' and students' perceptions towards M-learning in English teaching and learning were shown from the mean scores, the differences in these attitudes could be seen from the values of Standard Deviation (SD). In the teachers' questionnaire, the SD is almost greater than 1 for the statements: 4, 13, 18, 19, 20, 23, 24, 25, 26, 27, 28, 30, 33, 34, 35, 36, 37, 38, 39, 40, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59. Meanwhile, with the same statements on the students' questionnaire, the obtained SD values were lower than 1. These differences indicated that the student participants' scale choice was not significantly distinct because most of them chose scales at 4 and 5 in the given statements. In contrast, the teachers' answers held higher dispersion with the average SD score larger than 1.

4.1.1.12. Results of EFL teachers' and students' questionnaire through One sample T-Test

As the information from the questionnaire's closed-ended statements are considered as quantitative data, the participants' responses were collected and entered by SPSS software to analyze the data statistically. The One Sample T-test was used to analyze as a statistical test the results of the quantitative data. This test helps in comparing the mean of clusters' items with a hypothesized value below. The hypothesized mean = 3, which indicates No idea on the five point Likert-type scales. The hypotheses for testing each factor are as follows:

H0: If the mean rating of the proposed factor is greater than 3, accept the null hypothesis that the factor is significant, and users agree with using mobile technology in English education.

H1: If the mean rating of the proposed value is smaller than 3, accept the alternative hypothesis that the factor is not significant, and users do not agree with using mobile technology in English education.

The test value was defined as 3 on the five-point Likert scale for security factor,

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which ranged from 5 (strongly agree) to 1 (disagree). The statistical significant level of alpha is $\alpha = 0.05$. The null hypothesis (H₀) is rejected if the probability (*p*-value) of question is $> \alpha = 0.05$. The factor is statistically significant if the *p*-value < 0.05 , otherwise, the factor is not statistically significant.

Table 4.14. One sample T-Test of EFL teachers' questionnaire (N=69)

Clusters	Items	Mean	Sig. (2-tailed) (<i>p</i> value)	Results
EFL teachers' perceptions of the use of mobile devices in English teaching	Statement 1	3.8551	.000	Statically significant
	Statement 2	3.9420	.000	Statically significant
	Statement 3	3.8406	.000	Statically significant
	Statement 4	3.9130	.000	Statically significant
	Statement 5	4.0435	.000	Statically significant
	Statement 6	4.1159	.000	Statically significant
	Statement 7	4.0725	.000	Statically significant
	Statement 8	3.8406	.000	Statically significant
	Statement 9	3.8696	.000	Statically significant
	Statement 10	3.8841	.000	Statically significant
	Statement 11	4.2174	.000	Statically significant
	Statement 12	4.0145	.000	Statically significant
	Statement 13	3.8551	.000	Statically significant
	Statement 14	3.8551	.000	Statically significant
	Statement 15	4.2464	.000	Statically significant
	Statement 16	4.1304	.000	Statically significant
	Statement 17	4.0725	.000	Statically significant
	Statement 18	3.4928	.000	Statically significant
	Statement 19	3.2174	.001	Statically significant
EFL teachers' manipulation of mobile devices in teaching English	Statement 20	4.2319	.000	Statically significant
	Statement 21	4.2464	.000	Statically significant
	Statement 22	4.2174	.000	Statically significant
	Statement 23	4.1594	.000	Statically significant
	Statement 24	4.3478	.000	Statically significant
	Statement 25	4.1739	.000	Statically significant
	Statement 26	4.1304	.000	Statically significant
	Statement 27	4.0580	.000	Statically significant

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	Statement 28	4.0435	.000	Statically significant
	Statement 29	4.0290	.000	Statically significant
	Statement 30	3.9565	.000	Statically significant
	Statement 31	4.1884	.000	Statically significant
EFL teachers' perceived usefulness of mobile devices to teach English	Statement 32	3.5652	.000	Statically significant
	Statement 33	3.9710	.000	Statically significant
	Statement 34	3.9420	.000	Statically significant
	Statement 35	4.0870	.000	Statically significant
	Statement 36	4.0000	.000	Statically significant
	Statement 37	4.0580	.000	Statically significant
	Statement 38	3.9565	.000	Statically significant
	Statement 39	4.0435	.000	Statically significant
	Statement 40	4.0580	.000	Statically significant
	Statement 41	2.8841	.465	Statically not significant
	Statement 42	2.7101	.065	Statically not significant
	Statement 43	3.0145	.921	Statically not significant
Statement 44	3.1159	.432	Statically not significant	
EFL teachers' willingness to adapt to constant changes of mobile technology	Statement 45	4.0145	.000	Statically significant
	Statement 46	3.7826	.000	Statically significant
	Statement 47	4.0290	.000	Statically significant
	Statement 48	4.0290	.000	Statically significant
	Statement 49	4.1014	.000	Statically significant
	Statement 50	4.0290	.000	Statically significant
	Statement 51	4.0580	.000	Statically significant
	Statement 52	3.7826	.000	Statically significant
	Statement 53	4.0725	.000	Statically significant
	Statement 54	4.0290	.000	Statically significant
	Statement 55	3.9565	.000	Statically significant
	Statement 56	4.0580	.000	Statically significant
	Statement 57	4.0145	.000	Statically significant
	Statement 58	4.0580	.000	Statically significant
	Statement 59	4.0725	.000	Statically significant

Table 4.14 shows the analysis results of questionnaire for each item. From the

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questionnaire results, it can be seen that EFL teachers' perceptions of all clusters are all significantly acceptable in the use of mobile technology in English teaching and learning. All the results of the items show a mean >3 and p -value <0.05 . Nevertheless, the statements 41, 42, 43 and 44 just reach the mean scores < 3 and they are not statistically significant. This implies teachers did not agree that expense serving for teaching English via mobile technology is expensive. It is worth spending money for a useful and convenient technique of English lecturing. Namely, EFL teachers agreed with portable technology under wireless network via their non-supportive answers of four these items. Therefore, H_0 is accepted and the H_1 is rejected.

Table 4.15. One sample T-Test of EFL students' questionnaire (N=300)

	Items	Mean	Sig. (2-tailed) (<i>p value</i>)	Results
EFL students' perceptions of the use of mobile devices in English learning	Statement 1	3.7067	.000	Statically significant
	Statement 2	3.7667	.000	Statically significant
	Statement 3	3.7433	.000	Statically significant
	Statement 4	3.8267	.000	Statically significant
	Statement 5	3.8700	.000	Statically significant
	Statement 6	4.0233	.000	Statically significant
	Statement 7	4.0200	.000	Statically significant
	Statement 8	3.8133	.000	Statically significant
	Statement 9	3.8067	.000	Statically significant
	Statement 10	3.9200	.000	Statically significant
	Statement 11	4.1533	.000	Statically significant
	Statement 12	4.0433	.000	Statically significant
	Statement 13	3.8167	.000	Statically significant
	Statement 14	3.8000	.000	Statically significant
	Statement 15	4.0067	.000	Statically significant
	Statement 16	4.0433	.000	Statically significant
	Statement 17	3.8767	.000	Statically significant
	Statement 18	3.1070	.001	Statically significant

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	Statement 19	4.0033	.000	Statically significant
EFL students' manipulation of mobile devices in learning English	Statement 20	4.0967	.000	Statically significant
	Statement 21	4.0167	.000	Statically significant
	Statement 22	4.1267	.000	Statically significant
	Statement 23	4.1033	.000	Statically significant
	Statement 24	4.1833	.000	Statically significant
	Statement 25	3.9933	.000	Statically significant
	Statement 26	4.0433	.000	Statically significant
	Statement 27	3.8900	.000	Statically significant
	Statement 28	3.9533	.000	Statically significant
	Statement 29	3.9300	.000	Statically significant
	Statement 30	3.8533	.000	Statically significant
	Statement 31	4.0100	.000	Statically significant
EFL students' perceived usefulness of mobile devices to learn English	Statement 32	3.5400	.000	Statically significant
	Statement 33	3.7767	.000	Statically significant
	Statement 34	3.8367	.000	Statically significant
	Statement 35	3.9600	.000	Statically significant
	Statement 36	3.8667	.000	Statically significant
	Statement 37	3.9200	.000	Statically significant
	Statement 38	3.8867	.000	Statically significant
	Statement 39	3.9100	.000	Statically significant
	Statement 40	3.9800	.000	Statically significant
	Statement 41	2.6933	.060	Statically not significant
	Statement 42	2.3733	.461	Statically not significant
	Statement 43	2.3867	.068	Statically not significant
	Statement 44	2.3033	.191	Statically not significant
EFL students' willingness to adapt to constant	Statement 45	3.8667	.000	Statically significant
	Statement 46	3.6867	.000	Statically significant
	Statement 47	3.8500	.000	Statically significant
	Statement 48	3.8733	.000	Statically significant

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changes of mobile technology	Statement 49	3.9200	.000	Statically significant
	Statement 50	3.9067	.000	Statically significant
	Statement 51	3.9733	.000	Statically significant
	Statement 52	3.7700	.000	Statically significant
	Statement 53	3.9133	.000	Statically significant
	Statement 54	3.9100	.000	Statically significant
	Statement 55	3.8433	.000	Statically significant
	Statement 56	3.9133	.000	Statically significant
	Statement 57	3.8967	.000	Statically significant
	Statement 58	3.8567	.000	Statically significant
	Statement 59	3.9667	.000	Statically significant

Table 4.15 shows EFL students' attitudes and behaviors of four sections' items. The mean scores of all items are almost greater than value 3 and p is smaller than 0.05. Nonetheless, the items 41, 42, 43 and 44 hold the mean scores less than level 3, which indicates that EFL learners did not agree that the expenditure for mobile learning is costly though four of these were not statistically significant. Overall, the results of questionnaire' statements are statistically significant. Thus, the hypothesis number zero is approved because all items are in favor of the use of mobile technology in English teaching and learning. Thus, the H1 is declined.

4.1.2. In-depth interview data analysis

The qualitative methodology was used to examine the data from in-depth interviews and classroom observations (see Appendices 5 and 6). The responses of the interviewees were transcribed and analyzed in seven sub-categories: ownership, conception, expenditure, agreement, equipment, usefulness, and manipulation, which were then divided into four key sections: attitudes toward use, manipulation/ability to use, perceived usefulness, and willingness to adapt to constant changes of mobile technology mobile technology in English mobile teaching and learning.

The participants' answer from in-depth interview were in deductively drawn with seven sub-categories coding based on the meaning from the interviewees' answers. First, the answers from the interviews in Vietnamese from the audio files were saved into Microsoft word files and translated into English. Next, the sentences were filtered

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and grouped into 7 sub-themes. Finally, the sub-themes were classified and attached to four key elements of the thesis: attitudes toward use, abilities to use, perceived ease of use, and perceived usefulness and willingness to adopt mobile technology, which have been found previously. Each sub-theme was attached two terms of meaning: positive for the answers indicating agreement and negative for the answers indicating disagreement. The results of the in-depth interview's data are presented in the following sections.

4.1.2.1. Attitudes toward using mobile devices in English teaching and learning: perceptions and agreement

With such themes and sub-themes coded as mentioned in the introduction of this section, the following sections present the results from the interviews.

4.1.2.1.1. EFL teachers' perceptions of M-learning

Table 4.16. EFL teachers' perceptions of M-learning

Sub-themes	Meaning	Number of interviewees	EFL teachers' responses (representative)
<i>From your point of view, what is learning English through mobile devices? Have you ever used a mobile device to teach English?</i>			
<i>Perceptions</i>	Positive	12	Learning English through mobile devices; learning English in my free time. I usually read English news articles from BBC or CNN, watch videos on YouTube, or check grammatical spellings via Grammarly app on my iPhone.

In the interviews, the majority of teachers said that English mobile learning was viewed as a novel way for teachers and students to teach and study English using their mobile devices and wireless networks anytime and anywhere. The twelve interviewed teachers emphasized the importance of using applications like Cambly to communicate with native English speakers, ELSA to enhance pronunciation, and websites like BBC News, CNN, and YouTube to teach English and assist their students in learning English.

4.1.2.1.2. EFL students' perceptions of M-learning

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Table 4.17. EFL students' perceptions of M-learning

Sub-themes	Meaning	Number of interviewees	EFL students' responses (representative)
<i>From your point of view, what is learning English through mobile devices? Have you ever used a mobile device to teach English?</i>			
Perceptions	Positive	12	Learning through social networks on mobile devices. Helping me learn English at home on my mobile devices. I downloaded several apps to help me improve my English vocabulary and pronunciation.

Twelve of the interviewed students stated that learning English through mobile devices included learning on applications or exercising English skills in cyberspace, such as Google, YouTube, and the Online Dictionary, without having to attend a classroom. Students also thought that mobile learning may help them improve their foundational English abilities and knowledge, such as listening and speaking, pronunciation, vocabulary, and grammar. Besides, the participants appeared to be interested in leveraging the multi-functions of portable devices in English teaching and learning in general. As a result, the interviewees' responses all focused on the same practical topics, such as teachers' and students' understanding of mobile learning.

4.1.2.1.3. EFL teachers' agreement for M-learning

Table 4.18. EFL teachers' agreement for M-learning

Sub-themes	Meaning	Number of interviewees	EFL teachers' responses (representative)
<i>What do you think about your school applying English learning through mobile devices? Do you support mobile learning? Do you accept teaching English via mobile devices?</i>			
Agreement	Positive	12	It is convenient and easy for students to learn English. I support mobile learning because it is a new learning approach that can facilitate students' effective English learning. Also, I totally accept the idea of M-learning being applied at school...

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All of the EFL teachers shared that it would be advantageous for students to balance their working and studying if this teaching and learning platform was applied officially. Furthermore, the teachers highly showed their expectations towards teaching English through mobile devices soon. However, there was one teacher considering that class meetings needed to help students and teachers interact directly to consolidate and revise the lessons that they had learnt through mobile devices.

4.1.2.1.4. EFL students' agreement for M-learning

Table 4.19. EFL students' agreement for M-learning

Sub-themes	Meaning	Number of interviewees	EFL students' responses (representative)
What do you think about your school applying English learning through mobile devices? Do you support mobile learning? Do you accept learning English via mobile devices?			
Agreement	Positive	12	It is convenient for students who have part-time jobs in between English class hours as they can learn English anywhere. This also applies to all students as they can freely access English learning materials anytime and anywhere. I love this and certainly, I really support it. Obviously, I support and accept M-learning.

All of the twelve EFL students reported to use mobile learning in the interviews. They believed learning through mobile devices was convenient and flexible with their studying timetable. Furthermore, they agreed and expected this learning platform to be applied in the soonest time.

To conclude, both EFL teachers and students tended to agree to apply using mobile technology in teaching and learning because of its convenience. They expected mobile teaching and learning to be applied in the near future.

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4.1.2.2. Abilities to use M-learning: adaptation and ownership

4.1.2.2.1. EFL teachers' adaptation to changes of mobile technology

Table 4.20. EFL teachers' adaptation to changes of mobile technology

Sub-themes	Meaning	Number of interviewees	EFL teachers' responses (representative)
How can you manipulate mobile devices for teaching English appropriately and effectively? What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff? Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?			
Adaptation	Positive	12	<p>I think my manipulation of mobile devices is fairly good. I can quickly learn new apps and functions. I can also look for anything I am interested in on the internet.</p> <p>Sometimes when my iPhone or Samsung devices are slow, I just restart them, I occasionally have them repaired by technical experts.</p> <p>I am confident in using mobile devices with new functions. If I am puzzled about something, I will look it up on Google.</p>

The twelve teachers in the interviews showed their confidence to manipulate and control their mobile devices' functions for their English teaching every day. In other words, the EFL teachers regarded mobile devices as simple and easy to use and they were able to fix some usual technical errors themselves without experts' help. Furthermore, according to them, in the 4.0 technological revolution, they could learn and experience mobile technology's applications and functions every day; therefore, they were not afraid of constant changes of modern smart portables' functions based on their knowledge and experience.

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4.1.2.2.2. EFL students' adaptation on mobile devices

Table 4.21. EFL students' adaptation on mobile devices

Sub-themes	Meaning	Number of interviewees	EFL students' responses (representative)
How can you manipulate mobile devices for learning English appropriately and effectively? What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff? Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?			
Adaption	Positive	12	I can manipulate mobile devices in English learning quite well because I live in the 4.0 revolution era. I am also used to using mobile devices for contacting others and looking up information. As my iPhone and iPad are sometimes caught in stand-by, I am used to switch them off and on again every so often, and I did it by myself. I can learn how to use mobile devices' functions in the guiding book. I have been using mobile technology for a long time, so it is not difficult for me to keep myself up-to-date with modern mobile technology.

The answers showed that the manipulation of mobile devices did not seem to be difficult for any of the twelve interviewed EFL students. Technical accessibility on their mobile devices was designed to be straightforward. As a result, all learners felt confident in their ability to solve common mistakes without the assistance of technical experts. They also anticipated that when technology changed, they would be able to adopt the new functions of mobile devices in teaching and learning. The manipulation capability level of users with using mobile technology in learning English in this sense is acceptable.

4.1.2.2.3. Mobile device ownership of EFL teachers

Table 4.22. Mobile device ownership of EFL teachers

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Sub-themes	Meaning	Number of interviewees	EFL teachers' responses (representative)
<i>What kinds of mobile devices do you own? Is it/Are they a/some touch device/devices? Can it/they connect to the internet wirelessly?</i>			
Ownership	Positive	12	Yes, I own some touch mobile devices, including an HP laptop, smart phones, one iPhone 8, one iPhone 11 and an Apple MacBook. Yes, all of them have touching screen. They can connect to the wireless network well.

All twelve interviewed teachers reported that they all used touch devices and laptops with high-end brands, updated versions, and wireless connection, which were iPhone (8, X, 11), iPad (Apple), MacBook (Apple), HTC, Samsung, Sony Ericsson, Asus.

4.1.2.2.4. Mobile device ownership of EFL students

Table 4.23. Mobile device ownership of EFL students

Sub-themes	Meaning	Number of interviewees	EFL students' responses (representative)
<i>What kinds of mobile devices do you own? Is it/Are they a/some touch device/devices? Can it/they connect to the internet wirelessly?</i>			
Ownership	Positive	12	I own a Samsung Galaxy 10 smartphone, an Apple iPad. You know, they are all touch devices with such brands. Sure, They can connect to the wireless network.

The interviewed students shared nearly the same answers with the teachers in the interviews. Particularly, the twelve students reported that they also mentioned some popular touching devices and laptops such as iPhone (Apple), MacBook, Samsung Galaxy 10, iPad, HTC, Oppo (*See appendix 6*) which could connect to the internet wirelessly.

In short, all of the participants had their own mobile devices and reported to use at least one smart phone, laptop or tablet attaching plentiful modern functions, which were facilitated splendidly under wireless network. Thus, the conditions about mobile device ownership were strongly possible for users in teaching and learning English through mobile devices.

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4.1.2.3. *Perceived ease of use mobile devices in English teaching and learning: equipment and adaptation*

4.1.2.3.1. *EFL teachers' assessment on equipment for M-learning*

Table 4.24. EFL teachers' assessment on equipment for M-learning

Sub-themes	Meaning	Number of interviewees	EFL teachers' responses (representative)
<i>How do you assess the facilities equipped to serve English mobile learning at your school? How about the wireless network and technical staff?</i>			
Equipment	Positive	12	The way I see it, the school facilities are equipped quite well and appropriately. The Wi-Fi network installed in the school campus is widespread, strong, and stable overall.

EFL teachers reported that the wireless network was strong and well-equipped with a wide range of approaching bandwidth. Regarding the technical staff, most of the teachers positively commented about the staff's enthusiastic and friendly attitudes as well as their well-qualified skills in terms of technology problem-solving.

4.1.2.3.2. *EFL students' assessment of equipment for M-learning*

Table 4.25. EFL students' assessment of equipment for M-learning

Sub-themes	Meaning	Number of interviewees	EFL students' responses (representative)
<i>How do you assess the facilities equipped to serve English mobile learning at your school? How about the wireless network and technical staff?</i>			
Equipment	Positive	12	The facilities are well-equipped. The Wi-Fi connection of the school is strong and widespread. The technical staff are well-educated and are willing to support everyone enthusiastically.

All of the students reported that the high quality of wireless connection strongly supported their connection stability through mobile devices. The EFL students also provided positive comments about network technicians who supported them when struggling with technology and connection problems. Particularly, the interviewees also highly evaluated the positive support from many members of the technology team who were well-educated and willing to support students immediately.

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To sum up, both EFL teachers and students appreciated the high-quality wireless connection and the well-qualified technical staff. Most of the interviewed participants felt satisfied with the quality of the wireless network as well as their both enthusiasm and practical skills in terms of solving technical problems for teachers and students.

4.1.2.4. *Perceived usefulness of mobile devices in English teaching and learning: Usefulness and expenditure*

4.1.2.4.1. *Usefulness of M-learning in English teaching*

Table 4.26. Usefulness of M-learning in English teaching

Sub-themes	Meaning	Number of interviewees	EFL teachers' responses (representative)
<i>In what ways might mobile devices be used in your English teaching? Which English skills and knowledge will be taught through mobile devices?</i>			
Usefulness	Positive	12	I make use of English films and music for students to learn the essential English skills. I can also translate some difficult English words for the students during my reading comprehension lessons thanks to the Internet.

Twelve EFL teachers emphasized they could teach both skills and knowledge when mobile devices were allowed to use in the classroom. Particularly, they tended to apply audiovisual aids like films, games, pictures, and English songs, video clips to help students improve their receptive and productive skills as well as easy to acquire knowledge in terms of pronunciation and vocabulary.

4.1.2.4.2. *Usefulness of M-learning in English learning*

Table 4.27. Usefulness of M-learning in English learning

Sub-themes	Meaning	Number of interviewees	EFL students' responses (representative)
<i>In what ways might mobile devices be used in your English lessons? Which English skills and knowledge will be learnt through mobile devices?</i>			
Usefulness	Positive	12	Mobile devices can facilitate my English listening, reading and writing. However, learning speaking on mobile devices is not reasonable because the speaking skill needs to be practiced face-to-face and corrected by peers or teachers.

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The interviewed students also thought that they could learn almost four skills including listening, speaking, reading, writing through films, pictures, etc. through mobile learning. Furthermore, they could gain knowledge of pronunciation, vocabulary and translating sentences. However, there was only one student who considered that speaking skill should be practiced with their peers or teachers to receive peer correction and teacher's feedbacks instead of using mobile devices.

To summarize, most of the EFL teachers and students thought that mobile devices were helpful in English teaching and learning. Thanks to mobile devices, teachers could tailor the lessons to help their students gain knowledge and practice skills conveniently. Besides, students considered it is positive for them to learn English knowledge and practice English skills easily through mobile devices. The overall result of these questions drew a positive viewpoint about mobile devices in both EFL interviewees' education.

4.1.2.4.3. EFL teachers' assessment on expenditure of M-learning

Table 4.28. EFL teachers' assessment on expenditure of M-learning

Sub-themes	Meaning	Number of interviewees	EFL teachers' responses (representative)
<i>Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not? Are you willing to pay such expenses for teaching English through mobile devices?</i>			
Expenditure	Positive	12	No, almost everyone owns some sorts of mobile devices already. The expenses for Wi-Fi and learning materials of about 200.000 VND/month are not expensive. I am willing to pay. Yes, I pay expenses for mobile devices and online materials.

All the interviewed teachers considered that the prices of mobile learning like smart phones, tablets, Wi-Fi, online materials, etc. are affordable. EFL teachers were

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willing to pay for teaching English through mobile devices.

4.1.2.4.4. EFL students' assessment on expenditure of M-learning

Table 4.29. EFL students' assessment on expenditure of M-learning

Sub-themes	Meaning	Frequencies	EFL students' responses (representative)
<i>Do you think expenditure for mobile learning including mobile devices, Wi-Fi, online materials, etc. is expensive? Why or why not? Are you willing to pay such expense for learning English through mobile devices?</i>			
Expenditure	Positive	11	However, I think these expenses are quite suitable with the students' budget. It is not too expensive.
	Negative	1	Yes, these are a little expensive. I think so. Because I am also a student, I do not have the necessary amount of money to pay for these expenses myself. At the moment, I still have to have these expenses paid by my parents.

Eleven out of twelve students similarly answered in the interviews that the cost for mobile learning including mobile devices, Wi-Fi, online materials, etc. was reasonable and it was worth spending for the learning purposes because it was even cheaper than the tuition fee of an English course. However, only one student considered that mobile devices were quite expensive due to his family's financial condition.

To conclude, most teachers and students reckoned that the money for using mobile devices in teaching and learning English was reasonable. Also, this model of online learning was considered to be cheaper in comparison to the traditional classroom, some even thought of it as a convenient teaching and learning one. This implied that most of the interviewees saw that mobile learning expenditure was affordable and worth investigating for their active and useful teaching and learning.

In short, from the interviews, it could be said that EFL teachers and students both reported owning at least two mobile devices of a smart phone and a laptop, and almost one iPad more each of them. Besides, almost all of the teachers and students stated

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their practical perceptions of learning English through mobile devices. They did not agree that expenditure for this learning approach was expensive, and they were willing to pay for this expense. They tended to be excited and support learning English through mobile devices. Moreover, they considered the facilities equipped quite well with strong and wide Wi-Fi. The student participants planned to learn English skills of listening, speaking, reading, writing, vocabulary and grammar via visual media online like video clips, music, films, and pictures, etc. Finally, both EFL teachers and students saw that the use of mobile devices was simple; thus, they can complete tasks fast and solve technical errors themselves without technical staff. They were also significantly confident in manipulating mobile devices. Hence, it can be concluded that EFL teachers and students held supportive attitudes toward English education through mobile technology. Also, they were confident to manipulate smart portable devices to teach and learn English. The use of mobile devices for their English teaching and learning under Wi-Fi network did not cost them much. Lastly, they were willing to pay expense for M-learning thanks to its usefulness in English education and they could adapt well to unpredicted changes of mobile technology by their knowledge and experience in using mobile devices.

4.1.3. Analysis of classroom observation data

The data from classroom observations were broken down into three sections: (1) mobile device ownership, (2) mobile technology manipulation abilities, and (3) the purpose of using mobile devices in classroom teaching and learning. The EFL teachers' activities were detailed first, followed by those of the EFL students.

4.1.3.1. Use of mobile devices in the pronunciation class

4.1.3.1.1. EFL teacher's use of mobile devices

In one pronunciation class, the EFL teacher primarily manipulated their smart and portable devices like iPhones, laptops with Wi-Fi connection. They were able to perform speed and accurate touch, technical error repair without experts' help though technical staff was nearby. The EFL teacher used ELSA application to guide his students' pronunciation of consonants sounds: /t/, /d/, /p/, /b/, /f/ and /v/. Besides, the teacher suggested extra practice pronunciation on laptop while his students were commenting on Facebook using smart phones, iPads, Tablets, and laptops.

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4.1.3.1.2. EFL students' use of mobile devices

Following the teacher's instructions, the EFL students learned the pronunciation of sounds: /t/, /d/, /p/, /b/, /f/ and /v/ via the ELSA application through their mobile devices, like iPhone X, Samsung, Oppo, Mac books, Asus, tablets. Moreover, the students also exchanged ideas, lessons and exercises with their teachers and classmates in class. The students were well acquainted with the use of the touch screen due to frequent mobile usage. Sometimes, when someone's portables were in standstill, he/she swiftly switched off or restarted the devices to resolve the problem without calling for IT help.

In short, the EFL teacher and students had a tendency to use mobile devices for their teaching and learning. This suggested that both of the participant groups had the capacity to manipulate mobile technology to serve their teaching and learning English pronunciation purpose.

4.1.3.2. Use of mobile devices in the listening class

4.1.3.2.1. EFL teacher's use of mobile devices

The observed teacher accessed the internet through her Samsung smart phone and Asus laptop connected to Wi-Fi in the classroom. She could skillfully manipulate her mobile device and repair spontaneous technical errors on her laptops without calling for help from technical staff in the opposite room.

With the purpose of guiding her students to learn listening skills, the teacher requested her students to practice listening skill through listening to audio files, watching video clips broadcasted from her laptop. Moreover, she posted comments on a blog as extra exercise for her students.

4.1.3.2.2. EFL students' use of mobile devices

Following their teacher's request, the observed students practiced listening skills by listening to the audio while watching the video clips shown by their teacher. It was easy for them to download all online materials of their teacher because their mobile devices via iPhones, Samsung, Asus, Apple devices etc. in class, and almost students used theirs to learn listening skill and exchange listening exercises following the teacher's request. One student had to restart her slow smart phone; however, she did not need technical expert's support.

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In general, the EFL teacher and students tended to use mobile technology to support teaching and learning listening skill with confidence in manipulation.

4.1.3.3. Use of mobile devices in the writing class

4.1.3.3.1. EFL teacher's use of mobile devices

While teaching writing using the Phrasal Verbs Cards application, it was not difficult for the teacher to close all open tabs and solve his iPad's error. He unplugged the projector's connection to fix the technical issues so he could present power point to teach writing lessons on his Apple iPad. In his iPhone, he could use the Wi-Fi network to direct his students to online dictionaries to look up terminology and suggest that they complete assignments on the class online forum.

4.1.3.3.2. EFL students' use of mobile devices

The EFL students used the Phrasal Verbs Cards application on their iPhone X, iPhone VIII, iPhone VIII plus, iPhone VI plus, and Samsung to learn writing. Two students used their learning experience by entering installation to activate various functions that would help them exchange their lessons more effectively on the class forum. Almost all students looked up vocabulary and even talked on their phones.

In general, mobile devices were employed by EFL teachers and students to aid in the teaching and learning of English writing. Furthermore, both teachers and students were able to make effective use of their mobile devices. Both the teacher and the student participants were shown how to manipulate and use mobile devices to teach and learn English writing.

4.1.3.4. Use of mobile devices in the reading class

4.1.3.4.1. EFL teacher's use of mobile devices

The teacher's ability to manipulate mobile technology and the purposes for using mobile devices were recorded in a reading comprehension lesson. She taught the students reading comprehension lessons through Wi-Fi at school, in addition to Powerpoint, using the Duolingo application on her Asus laptop, which was restarted to fix the freezing screen. The teacher also supplied supplementary English paragraphs, video clips, and audio on the class forum, as well as online links for her students to refer to for reading comprehension on her laptop.

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4.1.3.4.2. EFL students' use of mobile devices

The observed EFL students used their smart phones, such as Samsung, iPhones, Oppo, iPads, and MacBook to study reading using the Duolingo application. Some students used Google to learn how to use the Duolingo program, while others turned off some of the functions in the installation item to make theirs operate more smoothly without needing technical assistance. Then, on their mobile devices, they entered the inquiry of reading teaching online to complete assignments, look for vocabulary, and do exercises.

With a variety of smart phone types, the student users were ready for smart devices for their teaching and learning English through portable technology by their mobile device ownership. This gave the EFL teachers and students the confidence to use mobile devices in class to educate and learn reading comprehension.

4.1.3.5. Use of mobile devices in the grammar class

4.1.3.5.1. EFL teacher's use of mobile devices

In the observed grammar class, the teacher connected Wi-Fi to log in and introduce Grammarly application to students on his iPhone X, which supported his grammar teaching on PowerPoint. He had one male student help his classmates to download and install Grammarly application while the teacher deleted several tabs on his laptop to surmount coded mistake files without technical experts' support. The teacher also accessed Google to surf grammar teaching texts and provided extra assignments for students.

4.1.3.5.2. EFL students' use of mobile devices

The observed students also browsed the links to finish the grammatical exercises in order to learn grammar, then they shared extra practice exercises via Zalo on their iPhone X, VIII, VII plus, Samsung, Oppo, and other devices.

In general, the teacher and students were similarly enthusiastic about using mobile devices to teach and learn English grammar. In fact, their manipulation was able to support English teaching and learning via mobile devices. Both EFL teachers and learners had a variety of high-end smart mobile devices such as smart phones, laptops, tablets, and other similar gadgets. Furthermore, they virtually always utilized at least one smart phone in conjunction with a laptop or an iPad, or even two or three devices at once. Overall, they utilized their mobile devices frequently to support their English teaching and learning in the classroom. Furthermore, they appeared to possess proper manipulation of mobile devices and the ability to recover technical issues

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without the assistance of specialist staff. As a result, it can be concluded from the observations that EFL teachers' and learners' attitudes toward English education through mobile technology were positive. In addition, they seemed to be self-assured in their ability to manipulate mobile devices and could resolve technical issues without assistance. It was not problematic for them to use of mobile devices which were assessed as useful tools and worthy cost for their English teaching and learning.

4.2. Discussion

This study adopted TAM to investigate the EFL teachers' and students' readiness for M-learning in teaching and learning English. More specifically, the study used a mixed method approach to examine the participants' acceptance for M-learning with the following four key points: the attitudes toward use (ATU), the abilities to use or manipulation (M), the perceived usefulness (PU), and the willingness to adopt mobile technology (WAC) in English teaching and learning of the EFL teachers and students.

The following figure illustrates how TAM was adopted and adapted as the theoretical framework for the current study:

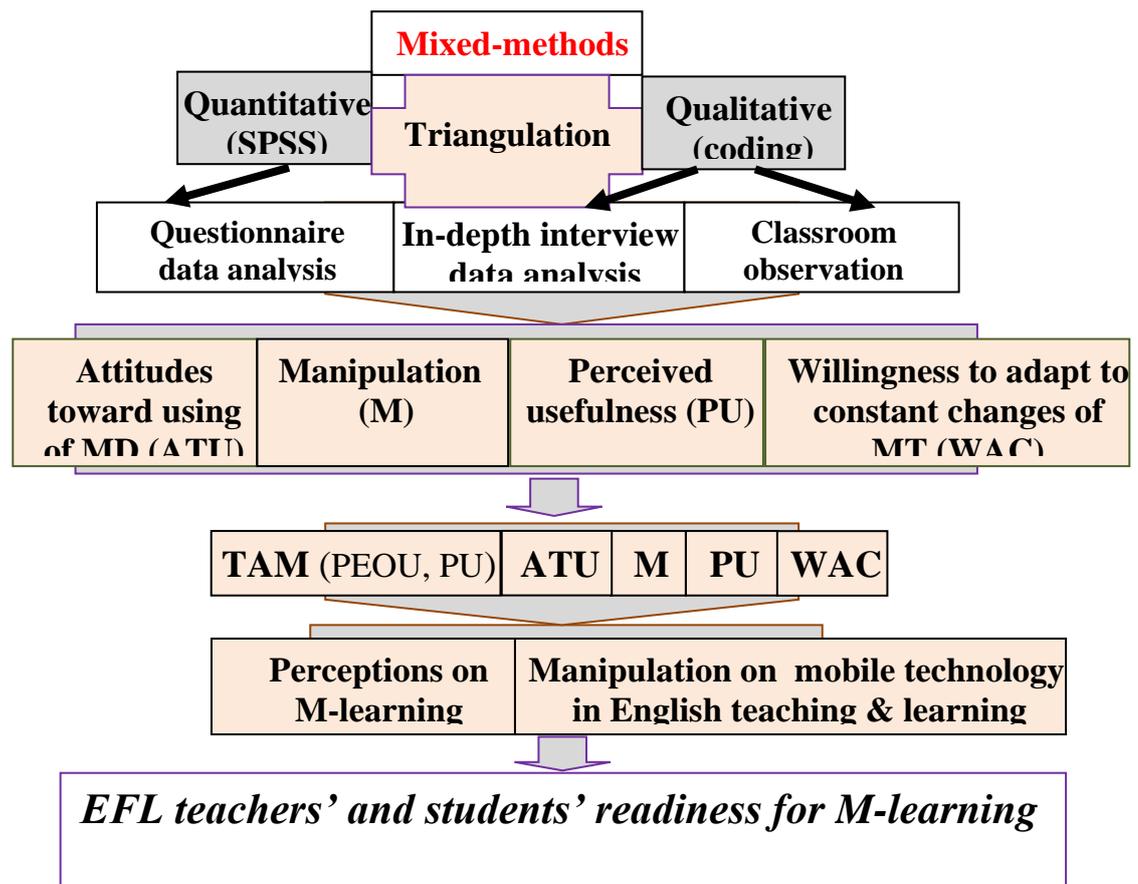


Figure 4.2. Units of Analysis

The following section will discuss the study's findings in light of TAM and

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compare the current study's findings with those from the related previous ones.

4.2.1. EFL teachers' and students' perceptions of M-learning in teaching and learning English

This study adopted the Technology Acceptance Model (TAM) (Davis, 1986) as a theoretical framework. Originally, TAM consists of two proposed constructs, perceived usefulness (PU) and perceived ease of use (PEOU). The underlying principles of TAM are that behavioral intention has a direct relationship with the actual use. These constructs were explored in the current study to shed light on the perceptions of the EFL teachers and learners, their readiness in abilities for M-learning, or in other words their behavioral intentions, and how well they actually adopt M-learning in teaching and learning English.

4.2.1.1. EFL teachers' and students' perceptions of M-learning in teaching and learning English

With regards to perceptions, the findings from the questionnaire for teachers revealed that the majority of the EFL teachers advocated the use of mobile devices in English instruction. The rather high mean score for the cluster on EFL teachers' attitudes toward the use of M-learning in teaching and learning English ($M = 3.95$, see Table 4.5) indicated their approval for the model. Besides, all of them showed high agreement for the statements by indicating that mobile devices were valuable instruments for enhancing learners' English abilities and knowledge. The same cluster on the students' attitudes toward the use of mobile devices in English learning also achieved a high mean score of 3.96 (see Table 4.7). In addition, the quantitative findings for students on their attitudes towards M-learning revealed that they highly agreed that mobile devices should be used in English classes as useful instruments for developing English skills and knowledge like grammar, vocabulary, and for promoting self-motivated learning.

The positive attitudes of the EFL teachers and learners towards using M-learning in teaching and learning English were reiterated in the qualitative data. In the interviews, the majority of the teachers said that mobile learning was a novel way for teachers and students to teach and study English using their mobile devices and wireless networks at any time and place. Similarly, in the interviews, the twelve

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interviewed students stated that learning English through mobile devices and learning on applications or practicing English skills may help them improve their English abilities and knowledge.

The findings of the current study on users' attitudes toward M-learning claimed the perceived usefulness of this mode of teaching and learning in EFL contexts. These findings echo that stated by Lin et al. (2020) who explored students from different countries including Taiwan, Vietnam, Indonesia, and China to see their acceptance of M-learning and found that behavioral intention towards the adoption of M-learning was their positive attitudes. The current study's finding was also in line with that by. Similarly, Nassuora (2012) who explored the potential of M-Learning for use in higher education with 80 students' interest in M-Learning and revealed that students had a high level of agreement with M-Learning.

Among the related previous studies on teachers' perceptions of M-learning, Cavus et al. (2020) surveyed 180 teachers and revealed that their approval for M-learning is high, but this rate is proportional to professional seniority and age ranges. Another study by the study by Gómez-Ramirez et al. (2019) explored the perceptions of M-learning adoption by university student and found that a moderate intention to adopt M-learning. The study by Abdulhafeth and Mahmoud (2013) also focused students' attitudes towards M-learning with a specific on mobile phones. The findings report that EFL students had favorable attitudes regarding utilizing cell phones in the classroom. Different from the studies by Cavus et al (2020), Gómez-Ramirez et al. (2019), and Abdulhafeth and Mahmoud (2013), the current study conducted surveys on both groups of participants including EFL teachers and students. Given the fact that teaching and learning are interwoven, and that attitudes of both groups should be taken into account on the adoption of M-learning, the study surveyed both teacher' and students' attitudes. In general, the EFL teachers and students shared their positive attitudes and perceptions regarding using mobile devices amid the wave of modern wireless technology. Both groups tended to approve the usefulness of mobile devices to support their English teaching and learning. This confirms a stronger acceptance for using M-learning as both parties involved in the process of teaching and learning English agreed with the use of mobile devices in the classroom.

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4.2.1.2. EFL teachers' and students' perceived abilities/manipulation of mobile devices in English teaching and learning

The second unit of analysis in the current study is the EFL teachers' and students' perceived ease of use (PEU) or their claimed abilities and manipulation of mobile devices in teaching and learning English. Another key construct of TAM is PEU which is described by Davis (1989) as a measure of how easily a person believes a computer may be understood and used. It is also defined as the degree to which a person believes that using a particular system would be effort-free or that devices are not difficult to manipulate (Jogiyanto, 2007).

In the current study, the questionnaire cluster on the theme of mobile devices manipulation by teachers achieved $M = 3.76$ (see Table 4.8) and all of the sub-theme statements reached the mean values ranging from 3.28 to 4.0, indicating that the majority of teacher-users had the ability employ mobile devices in their classrooms. As for the EFL students, the same questionnaire cluster on their manipulation of mobile devices for English learning achieved a higher mean score than that of the teachers, at 4.01. This parameter suggested that the EFL students tended to have a firmer claimed ability to adopt M-learning.

In the interviews, the twelve teachers stated their confidence to manipulate and control their mobile devices' functions for their English teaching every day. Most of them considered mobile devices to be simple and easy to use and fix usual technical errors themselves without experts' help. Similarly, the twelve interviewed students answered that the manipulation of mobile devices did not seem to be difficult for them. They also reported that they felt confident in their ability to solve common mistakes without the assistance of technical experts.

It should be noticed that claimed acceptance for M-learning in EFL also indicates the difficulties the users face in using mobile devices for English education (Pham, 2020), risk perceptions (Kasperson et al., 1988), and perceived benefits, barriers, and threat brought by technology interwoven with the individual bias for refusal or resistance (Zaunbrecher et al., 2014). The interview findings of the current study reveal that both groups of EFL teachers and students reported to be confident in using and manipulating mobile devices and in handling technical errors themselves during use.

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Besides, the class observations confirmed the teachers' and students' confidence and experience in employing smart devices in their classes. The observations revealed that during English lessons, when technical problems appeared, the teachers and students relied on themselves to solve the problems to continue with their teaching and learning. They seemed to be able to tackle the problems at ease. More specifically, in the pronunciation class, both the teachers and students were using their smart and portable devices like iPhones, laptops with Wi-Fi connection. They were able to perform prompt and accurate touch. The class used the ELSA application for practicing pronunciation without any difficulties. In the listening class, both teachers and students used audio, video clips for listening practice. In the writing class, an application named Phrasal Verbs Cards was employed by both teachers and students for English writing teaching and learning. Similarly, other applications and smart devices were used in the reading class, including PowerPoint slide presentations, the Duolingo application video clips, and audio on the class forum, as well as online links for students to refer to for reading comprehension. The grammar class also relied on similar smart applications and devices for English teaching and learning.

4.2.1.3. EFL teachers' and students' perceived usefulness of M-learning in English teaching and learning

Davis (1989) referred to PU as the degree of users' beliefs in adopting technology to improve job performance. In addition, "TAM postulates that perceived usefulness is an essential factor of user attitude toward adoption of technologies that might lead to the intention to use the technology and actual usage" (Barkhi et al., 2008, p. 34). The questionnaire data shows that the EFL teachers' perceived usefulness regarding using mobile devices to teach English achieved the $M = 3.21$ for all 13 statements. This mean score indicates that the participants had a favorable opinion of the ease of use of handy hi-tech equipment in their English instruction. With the statements regarding the perceived usefulness of mobile devices, the mean ranged from 3.2 to 3.7 (see Table 4.10). This result suggests that EFL teachers gave rather high agreement with the ease to implement their teaching sessions with mobile devices. However, the majority of the instructors tended to oppose to the thought of spending much money to own and operate their teaching on mobile devices. The statements regarding the expenses of using mobile devices achieved rather low mean scores, ranging from 2.07 to 2.36 (see Table 4.10).

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By contrast, EFL students' responses for the cluster on perceived usefulness of using mobile devices in learning English obtained a rather higher mean ($M= 3.69$) in comparison with the score from teachers' responses (see Table 4.11). The statements in this cluster regarding the perceived usefulness of mobile devices in learning English achieved mean values from 3.5 to 3.9, indicating high perception of students of the usefulness of integrating mobile devices into learning English. Similar to teachers, the students did not think that the cost of a mobile learning operation is prohibitively expensive.

The findings of the current study did not indicate negative perceptions of the use of mobile devices in teaching and learning English. This finding is rather in contrast with those found by Begum (2011) who evaluated mobile phones' potential as instructional tools by questionnaires. The findings of Begum's study showed that mobile phones had the potential to be used as an instructional tool; nonetheless, many teachers agreed that mobile phones were distracting in the classroom.

4.2.1.4. EFL teachers' and students' willingness to adapt to changes in mobile technology

The third unit of analysis of the current study adopted from TAM is users' willingness to adapt to constant changes of mobile technology. The data collected from teacher questionnaire for this cluster achieved $M = 3.74$ (see Table 4.12) and other statements for this clusters to achieve the mean values ranging from 3.6 to 4.0. This finding suggests that the EFL teachers were in a position to adapt to the constant changes of mobile technology with their knowledge and experience of using mobile technology. In comparison, the same cluster for students on this sub-theme reached the mean score of 3.87. They tended to value mobile devices in their English learning as instruments to help them with their learning, keeping contact, establishing communication, and looking up materials, among other things as reflected in the mean values for the statements of this cluster ranging from 3.7 to 3.9.

In the interviews, the participants reported having solid ability to adapt to the constant changes of mobile technology to self-exploit and serve their teaching and learning. More specifically, the 12 teachers reported that in the revolution 4.0, they could learn and experience mobile technology's applications, functions every day and

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that they were not afraid of constant changes of modern smart portables' functions based on their knowledge and experience to use. Similarly, in the interviews, the 12 students anticipated that when technology changes, they would be able to adapt new functions of mobile devices.

This finding are concordant with that found in the study by Yuan-Kai (2004) who focused on context awareness and the importance of adaptation in mobile learning. Context-aware M-learning in the study by Yuan-Kai (2004) meant detecting and responding to changes in context during the learning process. The findings revealed that users were aware of the difficulties of context and employed modifications. In this study, the participants seemed to show high levels of awareness of the constant changes in mobile technology and were ready to learn and experience new challenges.

4.3. EFL teachers' and students' readiness for M-learning in English teaching and learning

First, regarding the first research question on EFL teachers' perceptions of M-learning in English teaching and learning, it was found that this group appreciated the convenience of wireless electronic mobile devices as effective teaching tools for English skills and knowledge. At the same time, the costs of teaching via mobile technology such as the purchase of mobile devices, Wi-Fi, online materials, etc. were considered reasonable. Furthermore, the participants expressed their confidence in the effect of mobile devices on teachers' interactions with students for better teaching and learning English. Lecturers agreed that the self-study of students via mobile devices under the wireless network is better promoted.

In addition, interview data showed that the majority of the teacher participants disclosed their support for the use of mobile devices in English teaching through the basic ideas about M-learning. More noticeably, they reported that the wireless network system at their teaching settings was quite modern to ensure that it was strong enough with a team of genuine technology experts who were always ready to support users' technical problems.

In particular, the teachers perceived that they had the ability to manipulate and handle error techniques well on their equipment when technical problems occurred. They were confident in understanding electronic technology and well adapted to the use of increasingly advanced mobility technology.

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Finally, the reality of observing the classroom indicates the landscape that all EFL instructors possessed mobile devices used to teach English skills and knowledge in the classrooms. As such, teachers were conscious to leverage wireless technology in education and training with confidence in their operational knowledge amidst a strongly equipped Wi-Fi environment and a team of technical experts who were ready to help.

In general, the results for the first research question highlighted the teachers' support for using mobile devices under Wi-Fi networks in English teaching. Because of the effective features of wireless electronic tools, EFL teachers perceived their readiness to incorporate into English education from perceptions.

Second, the study focused on exploring university EFL students' perceptions of M-learning in English teaching and learning. Like teachers, EFL students appreciated mobile devices as effective and handy tools for effective English skills and knowledge at anytime and anywhere. For them, the expenses of learning English through mobile technology such as the cost of buying mobile devices, Wi-Fi, online materials, etc. were reasonable. Furthermore, students found it easy to interact with teachers and classmates about learning via mobile devices. They believed that they had a lot of opportunities for self-study at any time and any place via mobile devices and Wi-Fi networks.

For the in-depth interviews, the majority of EFL students gave their opinions in favor of mobile technology in learning English through the recognition of learning via wireless devices under the Wi-Fi network. They thought that it was worth spending money to buy mobile devices, Wi-Fi service, online materials, online English learning applications, etc. to learn English. For them, learning English via mobile devices was not expensive.

Remarkably, EFL learners appreciated the strength of the school's wireless network, which was strong enough and under the intensive support of a team of technical experts to operate M-learning system well. Notably, students shared that they confidently manipulated and handled technical errors on their mobile devices when learning English from their knowledge and experience of using electronic technology. Therefore, they reported not to be afraid of innovation and continuous elevation of modern high technology increasingly.

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The results from classroom observations show that EFL students all owned and used mobile devices to learn English skills and knowledge in class. In fact, they looked confident in their use of mobile technology that worked in the midst of a well-equipped Wi-Fi environment.

Third, regarding the research question 3 on what extent university EFL teachers are ready in perceived abilities to use M-learning in English teaching, data from the questionnaire indicate that the teachers held positive perceptions of English teaching through mobile technology through their acceptance of the use of mobile technology between wireless networks. They approved the use of mobile technology in teaching English skills and knowledge. They believed in the usefulness of mobile devices as tools for learners to access lessons anytime and anywhere and learn effectively and conveniently.

In addition, the teachers' perspectives from the in-depth interviews revealed their appreciation for teaching English through mobile devices. They supported the 4.0 modern technology-based teaching method and encouraged the integration of mobile technology into English teaching and learning. Because EFL teachers had a positive attitude towards M-learning, they were confident in their ability to use and solve technical errors on mobile devices.

In fact, classroom observations show that the teachers had actively used their own mobile devices such as smartphones, tablets, laptops, etc. to access specialized websites and applications to teach English knowledge and language skills for EFL students. All the lecturers owned mobile devices with prestigious and modern brands in the world such as Iphone, Samsung, Oppo, Asus, etc with advanced versions combined with traditional teaching methods in classroom to impart students' knowledge. Although the observation time for each class was not more than 50 minutes, the researcher noted that the Wi-Fi network in the classrooms was quite strong, ensuring that the M-learning system operated smoothly and smoothly. Next, a team of IT experts appeared regularly and ensured timely presence all the time to support users when technical errors occur. In particular, classroom observations reveal that EFL teachers had the ability to manipulate and handle technical errors on their own devices proficiently. In general, data from the three research tools including

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questionnaire, interview, and observation show that EFL teachers were ready to use M-learning from the perception to the practice of using mobile technology for English language teaching.

Finally, the study tried to answer research question 4 on what extent university EFL students were ready in perceived abilities to use M-learning in English learning. Data from the questionnaire showed that the learners agreed to the use of wireless technology in learning English skills and knowledge. The teachers showed a positive perception towards teaching English through mobile technology through their acceptance of the use of mobile technology between Wi-Fi networks in teaching. They recognized the usefulness of portable devices as tools so that students can access lessons anytime and anywhere in a convenient and effective way. Certainly, the cost of learning English through mobile devices was considered to be worth spending. Besides, EFL students agreed that M-learning could well support the interaction between teachers and students, and students with students for learning exchange. In addition, EFL learners also believed that M-learning helped students activate the spirit of self-studying English of students.

Through in-depth interviews, students appreciated teaching English through mobile devices. The learners' opinions show that they supported technology revolution 4.0 based-teaching method. They expected the integration of mobile technology under the wireless network into English learning. Most EFL students were confident in their ability to use and handle technical errors on mobile devices.

In addition, EFL class observations revealed that students actively used their smartphones, tablets, laptops, etc. to access online resources from websites and applications to learn English for EFL students. Obviously, students owned and used mobile devices of high-end versions of prestigious and modern brands in the world such as Iphone, Samsung, Oppo, Asus, etc. for learning English purpose. During the research, the Wi-Fi network in the classrooms was found to be strong enough for students to operate M-learning smoothly. In particular, EFL students operated well and quickly handled technical errors on their devices proficiently without the support of a team of IT experts who could be present anytime, anywhere to provide technical support to students.

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In conclusion, data from questionnaires, in-depth interviews and classroom observations reveal that EFL learners were ready to use M-learning from perception to practice in using mobile technology for learning EFL in the age of the technological revolution 4.0.

4.4. Summary

The current study explored EFL teachers' and students' perceptions of M-learning in English teaching and learning. It used the mixed-method approach with three main instruments, namely questionnaire, interview and classroom observations to triangulate and analyze data quantitatively and qualitatively to reveal EFL teachers' and students' readiness for M-learning. The next chapter will summarize the key findings and present the thesis' contributions, implications and limitations.

CHAPTER FIVE: CONCLUSIONS AND IMPLICATIONS

This chapter summarizes the key findings of the study, and provides implications for using M-learning in English teaching and learning. The study's limitations and suggestions for further research will also be presented in this chapter.

5.1. Summary of the key findings

This study addressed four research questions: (1) What are university EFL teachers' perceptions of M-learning in English teaching and learning? (2) What are university EFL students' perceptions of M-learning in English teaching and learning? (2) To what extent are university EFL teachers ready in perceived abilities to use M-learning in English teaching? and (4) To what extent are university EFL students ready in perceived abilities to use M-learning in English learning? The findings are summarized below.

First, data from the questionnaires for both teachers and students indicate that the majority of EFL teachers supported the use of mobile devices in English instructions. Besides, they were inclined to regard mobile devices as valuable instruments for enhancing learners' English abilities and knowledge. These findings were similar to those gained from the questionnaires for EFL students. In addition, EFL students highly agreed that mobile devices should be used in English classes for developing English skills and knowledge like grammar, vocabulary, and promoting self-motivated learning. Both teachers' and students' positive attitudes towards M-learning in teaching and learning English were also reported in the qualitative data. In the interviews, most teachers said that mobile learning was a novel way teaching and learning English. With regard to the interviewed students, all of them stated that learning English through mobile devices helped them improve their English skills and knowledge.

The second key finding of the current study elaborated on how ready university EFL teachers and students were in perceived abilities to use M-learning in English teaching and learning. By adopting TAM, the current study explored the participants' readiness through EFL teachers' and students' perceived ease of use (PEU) or their claimed abilities, and manipulation of mobile devices in teaching and learning English. In essence, readiness in the current study refers to the users' attitudes, willingness,

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acceptance, intentions for employing M-learning. In other words, the current study explored the EFL teachers' and students' attitudes toward the use, attitudes toward ease of use, abilities to use or manipulate, and willingness to adopt mobile technology in the English classroom.

Questionnaire data indicate that the majority of EFL teachers had the ability to employ mobile devices in their classrooms. As for the EFL students, a similar questionnaire cluster on manipulation of mobile devices for English learning achieved a higher mean score than that of teachers, suggesting that the EFL students tended to have a firmer claimed ability to use M-learning. In the interviews, the twelve teachers stated their confidence to manipulate and control their mobile devices' functions for their English teaching every day. Similarly, the twelve interviewed students answered that the manipulation of mobile devices did not seem to be difficult for them. The students also reported that they felt confident in their ability to resolve their common mistakes without the assistance of technical experts. Besides, the class observations revealed that both teachers and students were apparently confident in using mobile devices during English lessons and that when technical problems appeared, the teachers and students were able to rely on themselves to solve the problems and continue with their teaching and learning.

Readiness was also explored through the EFL teachers' and students' perceived usefulness (PU) regarding using mobile devices to teach and learn English. The relatively high mean scores found in this cluster indicated that the participants had a rather high agreement with the ease to implement mobile devices to their teaching sessions. Besides, EFL students' responses for the cluster on perceived usefulness of using mobile devices in learning English witnessed a rather higher mean score, indicating an even higher agreement with the usefulness of integrating mobile devices into learning English.

In addition, the investigation of the readiness in perceived abilities in the current study focused on the users' willingness to adapt to the constant changes of mobile technology in their English teaching and learning. The data collected from the teachers' questionnaires for this cluster achieved a mean score of 3.74, indicating that the EFL teachers were in a readily available position to adapt to the constant changes

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of mobile technology with their knowledge and experience of using mobile technology. Similarly, EFL students had a tendency to regard mobile devices as valuable instruments in their English learning to help them with their learning, contact, communication, and materials. In the interviews, both EFL teachers and students reported that they were well capable of adapting to the constant changes of mobile technology to serve the purpose of teaching and learning.

Readiness is defined as the relationship between effective preparedness and efficient relief (Melese, 1998). Preparedness is deduced from preparation, the ability to respond quickly, and a willing attitude. Preparedness is considered to incorporate cognitive methods, content knowledge acquisition, academic practices, and contextual knowledge and abilities (Conley, 2007). With these key connotations of readiness, readiness fits in TAM framework in which readiness for M-learning indicates that users perceived mobile devices as a tool to communicate, collaborate, and learn. It also explores whether learners are enthusiastic and look forward to the integration of M-learning in their learning process, and whether learners have the required skills for M-learning (Maniar et al., 2008, Fozdar & Kumar, 2007, Alzaza & Yaakub, 2011; Attewell, 2005). In this sense, readiness refers to users' attitudes, willingness, acceptance, intentions for employing M-learning. In essence, the current study expanded the extent of readiness into exploring EFL teachers' and students' attitudes to use, attitudes to ease of use, abilities to use or manipulation and willingness to adapt mobile technology in English education.

The findings from the questionnaires for both EFL teachers and students reveal relatively high agreement through the mean scores from their responses indicating their positive attitudes towards M-learning in teaching and learning English (see sections 4.1.1.4 - 4.1.1.11). Besides, both EFL teachers and students appreciated the perceived usefulness regarding using mobile devices to teach and learn English through the questionnaires and interviews (see section 4.1.2). They also indicated their willingness to adapt to the constant changes in the digital technology as discussed earlier in this discussion section (see section 4.2). The interviews with 12 teachers and 12 students also confirmed their positive attitudes towards M-learning in English teaching and learning. If readiness is also determined by how users view mobile

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technology as a new tool for learning and teaching (Zulkafly et al., 2011), then the quantitative and qualitative findings from the current study suggest that the EFL teachers and students were ready in their attitudes, willingness to use and manipulation or abilities to use M-learning in English teaching and learning.

With regards to the readiness in integration of M-learning into teaching and learning English, in the current study, the observation of the grammar class indicates that in general, the teacher and students alike were enthusiastic about using mobile devices to teach and learn English grammar via smart mobile devices such as smart phones, laptops, tablets, and other similar gadgets with self-assuredness and could resolve technical issues without assistance.

M-learning in the listening skill was explored in the study by Nah and Sussex (2008) whose study outcomes stated that learners had positive attitudes on using the WAP site to develop listening skills since the WAP can expand possibilities to learn language skills and motivate language learners to participate actively. In the current study, the listening class in which EFL teachers and students were observed when they were actually manipulating mobile devices in teaching and learning English listening. The observation shows that the use of audio, video clips broadcast from a laptop were handled with ease and these devices served the purpose of teaching and listening well.

The current study did not focus on an application for teaching and learning English, given the aims were to explore EFL teachers' and students' perceptions and intention readiness for M-learning. However, the observations from English skills classes revealed that the EFL teachers and students were able to manipulate mobile devices in their classes confidently and for the purposes of integrating technology into the lessons to make sure the teaching and learning went well.

In general, the current study was carried out to explore the EFL teachers' and students' readiness for M-learning in English teaching and learning. It aimed to seek the answers for the questions regarding both groups' perceptions of M-learning and their perceived abilities to use M-learning. Data from the mixed method approach using questionnaire, interview and class observation indicate that in perceptions, the EFL teachers and students considered M-learning to be a useful model for English teaching and learning. They tended to appreciate the perceived usefulness of mobile

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devices. The data from questionnaires, interviews and class observations generally indicate their readiness in both attitudes and abilities to employ M-learning in English teaching and learning of EFL teachers and students.

5.2. Recommendations from thesis

The following implications are suggested from the research findings regarding the use of mobile technology in English teaching and learning.

5.2.1. For administrators

Given the high agreement of the teachers in the current study with M-learning, in order to run a university's mobile learning program, administrators should adopt appropriate policies to activate and supplement mobile educational network research. They should provide teachers with professional courses on mobile education. Besides, they should support and authorize studies on mobile learning, and instructors' use of mobile technology in the classroom should be encouraged. Administrators, in particular, should look for possible research, funding, and sponsor sources to strengthen cooperation for mobile network projects. Financial and technical staff investigations should be taken into account and applied in order to effectively conduct learning via mobile devices.

Furthermore, educational institutions should provide training to teachers on how to use and integrate mobile technology in the classroom, covering the capabilities of mobile technology and its potential use in the classroom, as well as applications available on smart mobile devices. Besides, collaboration between the university and either the computer science departments or external resources may result in the development of course-specific mobile applications that may be utilized in general education classes.

5.2.2. For teachers

The current study reveals that the EFL teachers perceived the necessity and usefulness of M-learning and they tended to be ready for employing mobile devices in teaching English and for adapting to the constant changes in mobile technology. Therefore, mobile devices should be used to support in-class lectures as well as for giving instructions to assignments and homework, lesson forums, and other activities in

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order to build a flexible and successful English learning environment. Besides, teachers should learn specific techniques to manipulate mobile devices to make the lessons effective. Furthermore, teachers should be interested in including the use of mobile smart devices in their English classes in order to create a community of learners who value active learning and flexible engagement. In fact, mobile devices should be used to promote communication and engagement between students and teachers, teachers and teachers, and students and students to fostered knowledge co-construction. Fourth, using mobile devices to learn English should be encouraged and maintained in order to develop autonomous learning not only for students but also for teachers.

5.2.3. For students

The findings of the current study indicate that students held positive attitudes toward M-learning and they seemed to be ready in perceived abilities to use and manipulate mobile devices as well as in willingness to adapt to constant changes in mobile technology. Therefore, students should use their mobile devices to supplement their English learning in the classroom as well as in online learning. If necessary, they should learn how to manipulate mobile devices skillfully and effectively to make the most out mobile devices. Changes start with perceptions and then with practice. The findings of the study show that students perceived that learning English via mobile devices is necessary and beneficial. Thus, students should maintain and update their practices in English learning via mobile technology. Furthermore, learners need to be users to enjoy the date-up-date technological breakthrough for their knowledge acquire with endless and multiple level material resources that could be approached anytime. Under wireless network, students should enable their automatic learning habit and interaction through their exchange with teachers and classmates. Also, students should utilize multiple-functional and smart portables to promote their self-study to practice English skills and knowledge. Moreover, learners had better frequently update their devices' smart functions to enrich technological knowledge and using experience to adopt on unpredicted changes of ultramodern mobile technology. Most importantly, using mobile technology in English learning should be pivoted as mainly effective learning approach following National Foreign Languages Project (NFLP) 2025.

5.3. Implications for future research

Future studies should include multiple universities and look at variances based on geography, accessible resources, and teacher technology training to yield diverse findings and potential generalizations in findings about M-learning in English teaching and learning. Additional research might be done to include graduate students and compare undergraduate and graduate student perspectives. It is also suggested that future researchers delve deeper into the elements that influence EFL teachers' and students' attitudes and views of mobile technology in language teaching and learning. Another direction for future studies is to examine how certain mobile applications can be used in a classroom or by teachers and students to promote technological and convenient training. Although many researches have been conducted on specific mobile learning activities in the classroom, subsequent studies should concentrate on the capabilities of modern technology and the implications of how the use of a personal mobile device may affect English teaching and learning. Future researchers should collaborate with researchers from other fields to establish an online platform that would allow instructors to construct content-specific applications without having to know anything about software development.

5.4. Limitations of the study

One limitation of the current study is that it did not gather data from EFL students at all levels, and the exploration of learners' thoughts and attitudes was limited to EFL sophomores. Besides, as the researcher did not observe all of the classes at the research site, the data may not have accurately reflected all of the English learning scenarios with mobile devices. Besides, higher frequency of class observations may reveal richer understanding of the actual employment of mobile devices in EFL classes. Thus, the current study's findings might not be generalized for other English teaching and learning contexts via mobile devices.

Another limitation of the current study comes from the tools for data collection. Only 59 statements were included in the questionnaire, which did not appear to collect extensive information about all mobile learning applications. In addition, some

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questionnaire items might not have been able to elicit completely correct responses from the participants due to lack of specific information such as the use of mobile devices applicable to EFL contexts only. In addition, there are only seven interview questions for participants' deep concept investigation. Finally, just 19 items were arranged in each classroom observation answer sheet to document the actual circumstance, purpose, and capacity of EFL teachers and students using mobile technology in class. The thesis overall was limited to the application of M-learning in the classroom. As a result, the practicality of applying M-learning outside of the classroom remains topic to be explored.

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APPENDICES

APPENDIX 1: EFL TEACHER QUESTIONNAIRE

This questionnaire aims to survey readiness of EFL teachers and students for English M-learning (learning English through mobile devices). “Mobile devices” include all handheld devices are capable of multiple functions without limitation of the internet entry, running applications, listening to music, etc. like smart phones, iPod touch, iPads, laptops, tablets. Please fill out this survey which is divided into seven sections. It may take about 40-45 minutes to complete the survey.

Thank for your participation.

MOBILE LEARNING SURVEY					
SECTION 1: DEMOCGRAPHICS					
<i>Please choose one of some answers listed below:</i>					
Questions	Answer				
1. Please indicate your gender. <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other (please specify).....					
2. Which English degree(s) are you teaching at your university? <input type="checkbox"/> General English I <input type="checkbox"/> General English II <input type="checkbox"/> General English III <input type="checkbox"/> Specialized English <input type="checkbox"/> Others.....					
1. What kinds of smart mobile devices do you have? How many ones and what brands of them do you have? (You can tick more than one device.)					
	<i>Brand, version /Quantity):</i>/.....	<i>Brand, version /Quantity):</i>/.....	<i>Brand, version /Quantity):</i>/.....	<i>Brand, version /Quantity):</i>/.....	
<input type="checkbox"/> Smart phones/...../...../...../.....	
<input type="checkbox"/> Tablets/...../...../...../.....	
<input type="checkbox"/> Laptops/...../...../...../.....	
<input type="checkbox"/> iPods/...../...../...../.....	
<input type="checkbox"/> Others, (Please specify)/...../...../...../.....	
SECTION 2: TEACHERS’ ATTITUDES TOWARDS THE USING (ATU) OF MOBILE DEVICES IN ENGLISH TEACHING AND LEARNING <i>Please answer the following questions using the scale below by ticking the only one cell for one of scales in each statement.</i>					
Statement	Strongly disagree	Disagree	No idea	Agree	Strongly agree
1. I find it more engaging when I teach English through mobile devices.					
2. When I conduct my English classes through mobile devices, I communicate with my students more					

frequently.					
3. There are more in-class interactions owing to the use of mobile devices.					
4. I am more likely to exchange experiences with my colleagues owing to the use of mobile devices.					
5. Learning English through mobile devices stimulates my students' autonomous learning.					
6. Mobile devices are useful for teaching English grammar.					
7. Mobile devices are useful for teaching English vocabulary.					
8. Mobile devices are useful for teaching English pronunciation.					
9. Mobile devices are useful for teaching English listening skill.					
10. Mobile devices are useful for teaching English writing skill.					
11. Mobile devices are useful for teaching English speaking skill.					
12. Mobile devices are useful for teaching English reading skill.					
13. The use of mobile devices can enhance spoken interactions in the English classroom.					
14. The use of mobile devices can enhance students' mutual collaboration in the English classroom.					
15. Mobile devices should be allowed as a fundamental English teaching tool.					
16. The use of mobile devices should be further encouraged in English learning.					
17. By learning English through mobile devices, the students' sense of initiative is noticeably increased.					
18. The use of mobile devices in the English classroom makes the lessons more effective and engaging.					
19. M-learning should be effectively incorporated into my English teaching.					
SECTION 3: TEACHERS' MANIPULATION (M) ON MOBILE DEVICES FOR ENGLISH TEACHING AND LEARNING					
Statement	Strongly disagree	Disagree	No idea	Agree	Strongly agree
20. With mobile devices, I can take notes, set reminders, make phone calls, send messages, take photos, videos, recordings, etc. when teaching English.					
21. With mobile devices, I can make use of many social platforms like Facebook, zalo, Line, WeChat, WhatsApp, blogs, etc. to keep in touch with my students and colleagues.					
22. With mobile devices, I have access to many online teaching materials such as online games, electronic lectures, sample lesson plans, etc. to support my English teaching.					

23. I can use mobile devices anytime and anywhere, with or without the internet, as a handy tool for English teaching.					
24. I am capable of utilizing the mobile devices' smart functions to conduct various in-class activities.					
25. I can single-handedly solve a number of technical errors on mobile devices like standstill, slow-running apps, unresponsive screen, etc.					
26. I usually look through my mobile devices' installation parts to look for any possible technical errors and take immediate action.					
27. I keep the programs and applications on my mobile devices up-to-date for teaching purposes.					
28. I constantly keep up with the ever-changing trends of technology to serve teaching purposes.					
29. I am confident in using the new features of my mobile devices for English teaching with my up-to-date technical knowledge.					
30. I am confident in using my mobile devices' new features for English teaching with my up-to-date experience of using portable technology.					
31. I look forward to having newly-developed technological innovations installed on my mobile devices to serve my English teaching.					
SECTION 4. TEACHERS' PERCEIVED USEFULNESS (PU) OF MOBILE DEVICES TO TEACHING AND LEARNING ENGLISH					
Statement	Strongly disagree	Disagree	No idea	Agree	Strongly agree
32. It is quite effortless to learn how to use mobile devices in English teaching.					
33. Teaching English on a multi-functional mobile device does not pose much difficulty.					
34. It is easy to engage in in-class discussions using a mobile application or mobile-formatted website.					
35. It is easy to deliver English lectures through mobile devices anytime and anywhere.					
36. It is easy to complete all of the objectives of an English course using mobile devices.					
37. It is easy to manipulate mobile devices for English lessons.					
38. I am able to use mobile devices to access the English courses' contents.					
39. I am confident in using mobile devices for teaching the essential English skills and knowledge.					
40. I would like to learn more about mobile applications to incorporate them into the English classroom.					
41. The expense of using mobile devices for teaching English is costly.					
42. The expense of internet connection on mobile					

devices is costly.					
43. The expense of online English teaching materials is costly.					
44. Mobile devices make it difficult for me to manage my classes.					
SECTION 5: TEACHERS' WILLINGNESS TO ADAPT TO CONSTANT CHANGES OF MOBILE TECHNOLOGY (WAC) FOR ENGLISH TEACHING AND LEARNING					
Statement	Strongly disagree	Disagree	No idea	Agree	Strongly agree
45. I am capable of using mobile devices for English teaching purposes.					
46. I am interested in teaching English through mobile devices.					
47. I am capable of teaching English anytime and anywhere through mobile devices.					
48. I would like to keep in touch with my students anytime on the internet to support their learning.					
49. I would like to contact my colleagues anytime on the internet to exchange our experiences on class management, material preparation, learning problems, in-class activities, etc.					
50. I would like mobile learning to be integrated into my English classes.					
51. I would like to easily view my English course materials (i.e., syllabus, notes, assignments) on mobile devices.					
52. I am willing to pay the expenses of mobile devices (i.e., buying expenses, maintenance, internet connection, etc.) for English teaching purposes.					
53. Mobile devices are necessary tools for me to keep in touch with my colleagues and students outside the classroom.					
54. Mobile learning facilitates my English teaching with comfort.					
55. I am more motivated when teaching English through mobile devices.					
56. Teaching English through mobile learning helps me effectively deliver my lessons.					
57. Teaching English through mobile devices provides me with a lot of excitement.					
58. I am ready to adapt to the changes of modern mobile technology for English teaching purposes.					
59. I look forward to teaching English fully through mobile devices.					

Thank you for your time and participation.

APPENDIX 2: QUESTIONNAIRE FOR EFL STUDENTS

The questionnaire is to survey the readiness of EFL students for English M-learning (learning English through mobile devices). “Mobile devices” include all handheld devices are capable of multiple functions without limitation of the Internet entry, running applications, etc. like smart phones, iPod touch, laptops, tablets, etc. Please fill out this survey which is divided into five sections. It may take about 30 - 35 minutes to complete the survey. Please tick on only one of five scales of Strongly disagree (SD), Disagree (D), No Idea (NI), Agree (A) and Strongly agree (SA) in the statements that contain these scales.

Bảng hỏi này khảo sát sự sẵn sàng của sinh viên học tiếng Anh như một ngoại ngữ (EFL) đối với việc học tiếng Anh qua các thiết bị di động (TBDD). TBDD bao gồm tất cả các thiết bị gọn nhẹ được tích hợp nhiều chức năng thông minh không giới hạn lối vào internet, vận hành các ứng dụng, ... như điện thoại thông minh, iPod, laptop, máy tính bảng, ... Vui lòng điền vào bảng khảo sát này (gồm thành 5 phần). Bạn có thể mất khoảng 30 - 35 phút để hoàn thành. Vui lòng trả lời 3 câu hỏi ở phần 1 và đánh dấu vào 1 trong 5 thang đo: Hoàn toàn không đồng ý (SD), Không đồng ý (D), Không có ý kiến (NI), Đồng ý (A) và Hoàn toàn đồng ý (SA) ở mỗi câu phát biểu từ phần 2 đến phần 5.

MOBILE LEARNING SURVEY
SECTION 1: DEMOGRAPHICS (Thông tin các nhân cơ bản)
<p>1. Please indicate your gender. (Vui long chọn giới tính của bạn)</p> <p><input type="checkbox"/> Male (Nam)</p> <p><input type="checkbox"/> Female (Nữ)</p> <p><input type="checkbox"/> Other (please specify)..... (khác, ghi rõ.....)</p>
<p>2. Please indicate which major you are learning. Vui long chọn đúng vào ngành học của bạn.</p> <p><i>English as a foreign language for:</i></p> <p><input type="checkbox"/> Economics (Kinh tế học)</p> <p><input type="checkbox"/> Business administration (Quản trị Kinh doanh)</p> <p><input type="checkbox"/> Accounting (Kế toán)</p> <p><input type="checkbox"/> Finance (Tài chính)</p> <p><input type="checkbox"/> Environment science (Khoa học Môi trường)</p> <p><input type="checkbox"/> Primary education (Giáo dục tiểu học)</p> <p><input type="checkbox"/> Preschool education (Giáo dục Mầm non)</p> <p><input type="checkbox"/> Fine arts (Nghệ thuật)</p> <p><input type="checkbox"/> Music (Thanh nhạc)</p> <p><input type="checkbox"/> Mathematics education (Su phạm Toán)</p> <p><input type="checkbox"/> Applied Mathematics (Toán - Ứng dụng)</p> <p><input type="checkbox"/> Physics pedagogy (Su phạm Vật lý)</p> <p><input type="checkbox"/> Chemistry pedagogy (Su phạm Hoá học)</p> <p><input type="checkbox"/> Biological pedagogy (Su phạm Sinh học)</p> <p><input type="checkbox"/> Literature pedagogy (Su phạm Ngữ văn)</p> <p><input type="checkbox"/> History pedagogy (Su phạm Lịch sử)</p> <p><input type="checkbox"/> Geography pedagogy (Su phạm Địa lý)</p> <p><input type="checkbox"/> Psychology (Tâm lý)</p> <p><input type="checkbox"/> Education management (Quản lý Giáo dục)</p> <p><input type="checkbox"/> Politic education (Giáo dục Chính trị)</p> <p><input type="checkbox"/> Agriculture (Nông học)</p> <p><input type="checkbox"/> Technical education (Su phạm Kỹ thuật)</p> <p><input type="checkbox"/> Law (Luật)</p> <p><input type="checkbox"/> Others: (please specify)..... (loại khác, ghi rõ...)</p>
<p>2. What kinds of smart mobile devices do you have? How many ones and what brands of them do you have? (You can tick more than one device.) Bạn sở hữu những loại thiết bị di động nào? (bạn có thể đánh dấu vào nhiều hơn 1 chọn lựa)</p>

	Brand, version /Quantity (Nhãn hiệu, dòng máy/số lượng):	Brand, version /Quantity (Nhãn hiệu, dòng máy/số lượng):	Brand, version /Quantity (Nhãn hiệu, dòng máy/số lượng):	Brand, version /Quantity (Nhãn hiệu, dòng máy/số lượng):	
<input type="checkbox"/> Smart phones (Điện thoại thông minh)/...../...../...../.....	
<input type="checkbox"/> Tablets (máy tính bảng)/...../...../...../.....	
<input type="checkbox"/> Laptop (Vi tính xách tay)/...../...../...../.....	
<input type="checkbox"/> IPods (máy nghe nhạc)/...../...../...../.....	
<input type="checkbox"/> Others, (Please specify) (khác, ghi rõ)/...../...../...../.....	

SECTION 2: STUDENTS' ATTITUDES TOWARDS THE USING (ATU) OF MOBILE DEVICES IN ENGLISH LEARNING. (Thái độ của sinh viên đối với việc sử dụng thiết bị di động vào việc học tiếng Anh)

Please give your idea about the following statements by ticking only one scale of each below. (Vui lòng đưa ra ý kiến của bạn đối với các phát biểu dưới đây bằng việc đánh một dấu (✓) vào một mức độ duy nhất tại mỗi phát biểu.)

Statement	Strongly disagree	Disagree	No idea	Agree	Strongly agree
I am more engaged in the lessons when learning English through mobile devices. <i>Tôi tham gia vào bài nhiều hơn khi học tiếng qua các thiết bị di động.</i>					
2. I communicate more with my teacher and classmates when learning English through mobile devices. <i>Tôi giao tiếp với giáo viên và bạn cùng lớp nhiều hơn khi học tiếng Anh qua các thiết bị di động.</i>					
3. Thanks to mobile devices, I can interact more with the teacher. <i>Nhờ thiết bị di động, tôi có thể tương tác với giáo viên nhiều hơn.</i>					
4. Thanks to mobile devices, I can interact more with my classmates. <i>Nhờ thiết bị di động, tôi có thể tương tác với bạn cùng lớp nhiều hơn.</i>					
5. Learning English through mobile devices helps my learning more autonomous. <i>Học tiếng Anh qua các thiết bị di động giúp tôi học tập tự chủ hơn.</i>					
6. Mobile devices are useful for learning English grammar. <i>Thiết bị di động hữu dụng với việc học ngữ pháp tiếng Anh.</i>					
7. Mobile devices are useful for learning English vocabulary. <i>Thiết bị di động hữu dụng với việc học từ vựng tiếng Anh.</i>					
8. Mobile devices are useful for learning English pronunciation. <i>Thiết bị di động hữu dụng với việc học phát âm tiếng Anh.</i>					
9. Mobile devices are useful for learning English listening					

skill. <i>Thiết bị di động hữu dụng với việc học kỹ năng nghe tiếng Anh.</i>					
10. Mobile devices are useful for learning English writing skill. <i>Thiết bị di động hữu dụng với việc học kỹ năng viết tiếng Anh.</i>					
11. Mobile devices are useful for learning English speaking skill. <i>Thiết bị di động hữu dụng với việc học kỹ năng nói tiếng Anh.</i>					
12. Mobile devices are useful for learning English reading skill. <i>Thiết bị di động hữu dụng với việc học kỹ năng đọc tiếng Anh.</i>					
13. The use of mobile devices can enhance peer interaction in English learning. <i>Việc sử dụng thiết bị di động có thể nâng cao sự tương tác trong việc học tiếng Anh.</i>					
14. The use of mobile devices can enhance mutual collaboration in the English classroom. <i>Việc sử dụng thiết bị di động có thể nâng cao sự hợp tác trong lớp học tiếng Anh.</i>					
15. The use of mobile devices should be allowed as a learning English tool. <i>Việc sử dụng thiết bị di động nên được cho phép như một công cụ học tiếng Anh.</i>					
16. The use of mobile devices should be encouraged in English learning. <i>Việc sử dụng thiết bị di động nên được khuyến khích trong việc học tiếng Anh.</i>					
17. By learning English through mobile devices, I can improve my sense of initiative. <i>Tôi có thể cải thiện tính chủ động của tôi bằng việc học tiếng Anh qua thiết bị di động.</i>					
18. The use of mobile devices in the English classroom makes the lessons more effective and engaging. <i>Sử dụng thiết bị di động trong lớp tiếng Anh hiệu quả hơn và hấp dẫn hơn.</i>					
19. M-learning should be effectively incorporated into my English learning. <i>Học tập qua thiết bị di động nên được kết hợp hiệu quả vào việc học tiếng Anh của tôi.</i>					
SECTION 3: STUDENTS' MANIPULATION (M) ON MOBILE DEVICES FOR ENGLISH LEARNING. (Khả năng sử dụng thiết bị di động của sinh viên)					
Statement	Strongly disagree	Disagree	No idea	Agree	Strongly agree
20. With mobile devices, I can take notes, set reminders, make phone calls, send messages, take photos, videos, recordings, etc. when learning English. <i>Với thiết bị di động, tôi có thể ghi chú, báo thức, gọi, nhắn tin, chụp ảnh, quay video, ghi âm, ...khi học tiếng Anh.</i>					
21. With mobile devices, I can make use of many social platforms like Facebook, zalo, Line, WeChat, WhatsApp, blogs, etc. to keep in touch with my teacher and classmates. <i>Tôi có thể sử dụng các thiết bị di động để vào mạng internet để giải trí như face-book, âm nhạc, zalo, line, WeChat, WhatsApp, blog...</i>					
22. I can use mobile devices to access online game websites,					

electronic lectures, and online learning classrooms to support my English learning. <i>Tôi có thể sử dụng các thiết bị di động để truy cập vào các trang game trực tuyến, bài giảng điện tử và lớp học online để hỗ trợ học tập của tôi.</i>					
23. I can use mobile devices anytime and anywhere, with or without the internet, as a handy tool for English learning. <i>Tôi có thể sử dụng các thiết bị di động mọi lúc mọi nơi khi có hoặc không có mạng Internet như một công cụ cầm tay cho việc học tiếng Anh.</i>					
24. I am capable of utilizing the mobile devices' smart functions to join in various in-class activities. <i>Tôi có khả năng sử dụng các chức năng thông minh của thiết bị di động để tham gia các hoạt động trong lớp.</i>					
25. I can single-handedly solve a number of technical errors on mobile devices like standstill, slow-running apps, unresponsive screen, etc. <i>Tôi có thể xử lý một số lỗi kỹ thuật trên thiết bị di động của tôi như đờng máy, chậm, mờ...</i>					
26. I usually look through my mobile devices' installation parts to look for any possible technical errors and look for solutions. <i>Tôi thường khám phá các tính năng tại mục cài đặt trên thiết bị di động để tìm cách xử lý các lỗi kỹ thuật.</i>					
27. I keep the programs and applications on my mobile devices up-to-date. <i>Tôi thường cập nhật các chương trình và các ứng dụng trên thiết bị di động của mình.</i>					
28 I constantly keep up with the ever-changing trends of technology to serve learning purposes. <i>Tôi có thể bắt kịp xu hướng thay đổi không ngừng của công nghệ mới trên thiết bị di động cho mục đích học tiếng Anh.</i>					
29. I am confident in using the new features of my mobile devices for English learning with my up-to-date technical knowledge. <i>Tôi tự tin sử dụng các tính năng mới trên thiết bị di động cho việc học tiếng Anh bởi kiến thức công nghệ của mình giữa sự thay đổi không ngừng của công nghệ hiện đại.</i>					
30. I am confident in using my mobile devices' new features for English learning with my up-to-date experience of using portable technology. <i>Tôi tự tin sử dụng các tính năng mới trên thiết bị di động cho việc học tiếng Anh bởi kinh nghiệm sử dụng công nghệ di động của mình giữa sự thay đổi không ngừng của công nghệ hiện đại.</i>					
31. I look forward to having newly-developed technological innovations installed on my mobile devices to serve my English learning. <i>Tôi mong đợi để tận hưởng sự đổi mới của công nghệ di động trên thiết bị di động của mình sắp tới cho việc học tiếng Anh của tôi.</i>					
SECTION 4. STUDENTS' PERCEIVED USEFULNESS (PU) OF MOBILE DEVICES TO LEARN ENGLISH. (Cảm nhận sự hữu ích của sinh viên đối với TBDD trong việc học tiếng Anh.)					
Statement	Strongly disagree	Disagree	No idea	Agree	Strongly agree

					ee
32. It is quite effortless to learn how to use mobile devices in learning English. <i>Không cần nhiều nỗ lực từ bản thân để tôi học cách sử dụng TBDD vào việc học tiếng Anh.</i>					
33. Learning English on a multi-functional mobile device does not pose much difficulty. <i>Học tiếng Anh trên TBDD đa chức năng thì không khó đối với tôi.</i>					
34. It is easy to engage in group work discussions using a mobile application or mobile-formatted website. <i>Tôi dễ dàng tham gia vào các cuộc thảo luận nhóm bằng việc sử dụng một ứng dụng di động hoặc trang web trong một định dạng di động.</i>					
35. It is easy to participate in in-class activities through mobile devices anytime and anywhere. <i>Dễ dàng cho để tôi tham gia các hoạt động trong lớp qua TBDD mọi lúc, mọi nơi.</i>					
36. It is easy to fulfill all of the assignments throughout an English course through mobile devices. <i>Dễ dàng để tôi hoàn thành tất cả nhiệm vụ học tập trong một khóa học tiếng Anh qua TBDD.</i>					
37. It is easy to manipulate mobile devices in the English classroom. <i>Dễ dàng để tôi thao tác trên TBDD trong lớp học tiếng Anh.</i>					
38. I am able to use mobile devices to access the English courses' contents. <i>Tôi có khả năng sử dụng TBDD để truy cập vào nội dung các khóa học tiếng Anh.</i>					
39. I am confident in using mobile devices for practicing the essential English skills and knowledge. <i>Tôi tự tin để sử dụng TBDD để luyện tập kỹ năng và kiến thức tiếng Anh.</i>					
40. I would like to learn more about mobile applications to further engage in the lessons. <i>Tôi muốn học nhiều hơn về các ứng dụng di động, để mà tôi có thể kết hợp chúng vào bài học tiếng Anh của tôi sâu hơn.</i>					
41. The expense of using mobile devices for learning English is costly. <i>Chi phí cho thiết bị di động để phục vụ việc học tiếng Anh thì đắt tiền.</i>					
42. The expense of internet connection on mobile devices is costly. <i>Chi phí cho đường truyền mạng internet để phục vụ việc học tiếng Anh qua thiết bị di động thì đắt tiền.</i>					
43. The expense of online English learning materials is costly. <i>Chi phí tài liệu học tập trực tuyến để phục vụ việc học tiếng Anh qua thiết bị di động thì đắt tiền.</i>					
44. Mobile devices make it difficult for me to learn my English lessons. <i>TBDD gây khó khăn cho tôi khi học tiếng Anh.</i>					
SECTION 5: STUDENTS' WILLINGNESS TO ADAPT TO CONSTANT CHANGES OF MOBILE TECHNOLOGY (WAC) FOR ENGLISH LEARNING. (Sự sẵn sàng thích ứng của sinh viên với sự thay đổi không ngừng của công nghệ di động.)					
Statement	Strongly disagree	Disagree	No idea	Agree	Strongly agree
45. I am capable of using mobile devices for English learning purposes. <i>Tôi muốn sử dụng TBDD của riêng tôi cho mục đích</i>					

<i>học tiếng Anh.</i>					
46. I am interested in learning English through mobile devices. <i>Tôi quan tâm (thích thú) việc học tiếng Anh qua TBDD.</i>					
47. I am capable of learning English anytime and anywhere through mobile devices. <i>Tôi có khả năng học tiếng Anh trên TBDD mọi lúc mọi nơi.</i>					
48. I would like to keep in touch with my teacher anytime on the internet to ask about the lessons. <i>Tôi thích liên lạc với giáo viên qua mạng Internet mọi lúc để hỏi bài.</i>					
49. I would like to contact my classmates anytime on the internet to exchange about afterschool tasks, assignments, materials, learning problems, etc. <i>Tôi muốn liên lạc với bạn cùng lớp để trao đổi về nhiệm vụ học tập, bài tập, tài liệu, các vấn đề học tập, thảo luận, ... qua TBDD mọi lúc.</i>					
50. I would like mobile learning to be integrated into my English classes. <i>Tôi muốn việc học tập qua các TBDD được đưa vào lớp học tiếng Anh của tôi.</i>					
51. I would like to easily view my English course materials (i.e., syllabus, notes, assignments) on my mobile devices. <i>Tôi muốn dễ dàng nhìn thấy tài liệu khóa học tiếng Anh của tôi (chương trình, ghi chú, bài tập) ngay trên TBDD của tôi.</i>					
52. I am willing to pay the expenses of mobile devices (i.e., buying expenses, maintenance, internet connection, etc.) for English learning purposes. <i>Tôi sẵn sàng trả chi phí cho việc học tập trên TBDD (như tiền mua và bảo trì thiết bị, tiền mạng không dây ...) phục vụ cho mục đích học tiếng Anh của tôi.</i>					
53. Mobile devices are necessary tools for me to keep in touch with my teacher and classmates outside the classroom. <i>TBDD là công cụ cần thiết để giữ liên lạc với giáo viên và bạn cùng lớp bên ngoài lớp học.</i>					
54. Mobile learning facilitates my English learning with comfort. <i>Học tập trên TBDD hỗ trợ tôi để học tiếng Anh một cách thoải mái.</i>					
55. I am more motivated when learning English through mobile devices. <i>Tôi có động lực hơn để học tiếng Anh qua TBDD.</i>					
56. Learning English through mobile learning effectively helps me improve my English. <i>Học tiếng Anh qua TBDD hỗ trợ tôi cải thiện tiếng Anh một cách hiệu quả.</i>					
57. Learning English through mobile devices provides me with a lot of excitement. <i>Tôi hào hứng với việc học tiếng Anh qua TBDD.</i>					
58. I am ready to adapt to the changes of modern mobile technology for English learning purposes. <i>Tôi sẵn sàng thích nghi với sự thay đổi không ngừng của công nghệ di động hiện đại để phục vụ việc học tiếng Anh</i>					
59. I look forward to learning English fully through mobile devices. <i>Tôi mong đợi việc tiếng Anh qua thiết bị di động.</i>					

Thank you for your time and participation.
Cảm ơn bạn đã tham gia cuộc khảo sát.

APPENDIX 3: EFL TEACHER INTERVIEW QUESTIONS

1. *What kinds of mobile devices do you own?*

Is it/Are they a/some touch device/devices?

Can it/they connect to the internet wirelessly?

2. *From your point of view, what is learning English using mobile devices?*

Have you ever used a mobile device to teach English?

3. *Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?*

Are you willing to pay such expenses for learning English through mobile devices?

4. *How do you assess the facilities equipped to serve English mobile learning at your school?*

How about the wireless network and technical staff?

5. *In what ways might mobile devices be used in your English teaching?*

Which English skills and knowledge will be taught through mobile devices?

6. *How can you manipulate mobile devices for teaching English appropriately and effectively?*

What technical errors have you met on your mobile devices?

How can you solve them? Do you require assistance from the technical staff?

Are you able to keep yourself updated with the ceaseless changes of modern technology?

If yes, how can you learn about these changes?

7. *What do you think about your school applying English learning through mobile devices?*

Do you support mobile learning?

Do you accept teaching English via mobile devices?

APPENDIX 4: EFL STUDENT INTERVIEW QUESTIONS

1. What kinds of mobile devices do you own?
Em sở hữu những loại thiết bị di động nào?
Is it/Are they a/some touch device/devices?
Có thể cho cô biết nhãn hiệu và phiên bản thiết bị di động của em không?
Can it/they connect to the internet wirelessly?
Thiết bị/các thiết bị di động của em có thể kết nối Wi-Fi được không?
2. From your point of view, what is teaching English through mobile devices??
Theo em, học tiếng Anh bằng thiết bị di động là gì? và học tiếng Anh qua thiết bị di động là gì?
Have you ever used a mobile device to learn English?
Em đã từng sử dụng thiết bị di động phục vụ việc học tiếng Anh của em?
3. Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?
Em có nghĩ rằng chi phí học tập qua các thiết bị di động bao gồm chi phí thiết bị, mạng không dây, tài liệu trực tuyến có đắt không? Tại sao?
Are you willing to pay such expenses for learning English through mobile devices?
Em có sẵn sàng trả chi phí cho việc học tiếng Anh qua thiết bị di động?
4. How do you assess the facilities equipped to serve English mobile learning at your school?
Em đánh giá về các trang thiết bị phục vụ cho việc học tiếng Anh qua các thiết bị di động tại Trường bạn như thế nào?
How about the wireless network and technical staff?
Về hệ thống mạng lưới Wi-Fi và đội ngũ kỹ thuật như thế nào?
5. In what ways might mobile devices be used in your English lessons?
Thiết bị di động có thể được sử dụng trong bài học tiếng Anh của em ở những phương diện nào?
Which English skills and knowledge will be learnt through mobile devices?
Những kỹ năng và kiến thức tiếng Anh nào sẽ được học trên thiết bị di động?
6. How can you manipulate mobile devices for learning English appropriately and effectively?
Em có khả năng thao tác thiết bị di động để học tiếng Anh một cách hiệu quả như thế nào?
What technical errors have you met on your mobile devices?
Các lỗi kỹ thuật gì trên thiết bị di động mà em gặp?
How can you solve them?
Em xử lý chúng như thế nào?
Do you require assistance from the technical staff?
Em có cần sự giúp đỡ của đội ngũ kỹ thuật không?

Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?

Em có khả năng sử dụng thiết bị di động giữa những thay đổi không ngừng của công nghệ hiện đại không? Nếu có, em tiếp thu công nghệ mới cũng như học cách sử dụng chúng như thế nào?

7. What do you think about your school applying English learning through mobile devices?

Em có ý kiến gì nếu việc học tiếng Anh qua các thiết bị di động được áp dụng tại trường em?

Do you support mobile learning?

Em có ủng hộ việc học tập trên các thiết bị di động?

Do you accept learning English via mobile devices?

Em có tán thành hình thức học tiếng Anh qua các thiết bị di động của em không?

APPENDIX 5

TRANSCRIPTS OF EFL TEACHERS' AND STUDENTS' IN-DEPTH INTERVIEW Researcher (R), Teacher (T), Student (T)

EFL TEACHERS' ANSWERS	EFL STUDENTS' ANSWERS
<p>1. R: <i>What kinds of mobile devices do you own?</i> - T1: Yes, I own some touch mobile devices, including an HP laptop, smart phones, one iPhone 8, one iPhone 11 and an Apple MacBook. R: <i>Are they some touch devices?</i> - T1: Yes, all of them have touching screen. <i>Can they connect to the internet wirelessly?</i> - T1: They can connect to the wireless network well.</p> <p>2. R: <i>From your point of view, what is teaching English using mobile devices?</i> -T1: Learning English through mobile devices; learning English in my free time. R: <i>Have you ever used a mobile device to teach English?</i> - T1: I usually read English news articles from BBC or CNN, watch videos on YouTube, or check grammatical spellings via Grammarly app on my iPhone.</p> <p>3. R: <i>Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i> - T1: No, almost everyone owns some sorts of mobile devices already. R: <i>Are you willing to pay such expenses for teaching English through mobile devices?</i> - T1: The expenses for Wi-Fi and learning materials of about 200.000 VND/month are not expensive. I am willing to pay.</p> <p>4. R: <i>How do you assess the facilities equipped to serve English mobile learning at your school?</i> - T1: The way I see it, the school facilities are equipped quite well and appropriately. R: <i>How about the wireless network and technical staff?</i> - T1: The Wi-Fi network installed in the school campus is widespread, strong, and stable overall.</p> <p>5. R: <i>In what ways might mobile devices be used in your English teaching?</i> - T1: I make use of English films and music for students to learn the essential English skills. R: <i>Which English skills and knowledge will be taught through mobile devices?</i> - T1: I can also translate some difficult English words for the students during my reading comprehension lessons thanks to the Internet.</p> <p>6. R: <i>How can you manipulate mobile devices for teaching English appropriately and effectively?</i> - T1: I think my manipulation of mobile devices is fairly good. I can quickly learn new apps and functions. I can also look for anything I am interested in on the internet. R: <i>What technical errors have you met on your mobile devices?</i> - T1: Sometimes when my iPhone or Samsung devices are slow. R: <i>How can you solve them? Do you require assistance from the technical staff?</i> - T1: I just restart them, I occasionally have them repaired by technical experts. R: <i>Are you able to keep yourself updated with the ceaseless changes of modern technology?</i></p>	<p>1. R: <i>What kinds of mobile devices do you own?</i> - S1: I own a Samsung Galaxy 10 smartphone, an Apple iPad. - R: <i>Are they some touch devices?</i> - S1: You know, they are all touch devices with such brands. <i>Can they connect to the internet wirelessly?</i> Sure, They can connect to the wireless network.</p> <p>2. R: <i>From your point of view, what is learning English through mobile devices?</i> - S1: Learning through social networks on mobile devices. Helping me learn English at home on my mobile devices. R: <i>Have you ever used a mobile device to learn English?</i> - S1: I downloaded several apps to help me improve my English vocabulary and pronunciation</p> <p>3. R: <i>Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i> - S1: Yes, these are a little expensive. I think so. Because I am also a student, I do not have the necessary amount of money to pay for these expenses myself. However, I think these expenses are quite suitable with the students' budget. It is not too expensive. R: <i>Are you willing to pay such expenses for learning English through mobile devices?</i> - S1: At the moment, I still have to have these expenses paid by my parents. May be I won't.</p> <p>4. R: <i>How do you assess the facilities equipped to serve English mobile learning at your school?</i> - S1: The facilities are well-equipped. The Wi-Fi connection of the school is strong and widespread. R: <i>How about the wireless network and technical staff?</i> - S1: The technical staff are well-educated and are willing to support everyone enthusiastically.</p> <p>5. R: <i>In what ways might mobile devices be used in your English lessons?</i> - S1: Mobile devices can facilitate my English listening, reading and writing. R: <i>Which English skills and knowledge will be learnt through mobile devices?</i> - S1: However, learning speaking on mobile devices is not reasonable because the speaking skill needs to be practiced face-to-face and corrected by peers or teachers.</p> <p>6. R: <i>How can you manipulate mobile devices for learning English appropriately and effectively?</i> - S1: I can manipulate mobile devices in English learning quite well because I live in the 4.0 revolution era. I am also used to using mobile devices for contacting others and looking up information. R: <i>What technical errors have you met on your mobile devices?</i> - S1: As my iPhone and iPad are sometimes caught in stand-by. R: <i>How can you solve them? Do you require assistance from the technical staff?</i> - S1: I am used to switch them off and on again every so</p>

<p>- T1: I am confident in using mobile devices with new functions. <i>R: If yes, how can you learn about these changes?</i> - T1: If I am puzzled about something, I will look it up on Google. 7. <i>R: What do you think about your school applying English learning through mobile devices?</i> - T1: It is convenient and easy for students to learn English. <i>R: Do you support mobile learning?</i> - T1: I support mobile learning because it is a new learning approach that can facilitate students' effective English learning. <i>R: Do you accept teaching English via mobile devices?</i> - T1: Also, I totally accept the idea of M-learning being applied at school.</p>	<p>often, and I did it by myself. <i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology?</i> - S1: I can learn how to use mobile devices' functions in the guiding book. <i>R: If yes, how can you learn about these changes?</i> - S1: I have been using mobile technology for a long time, so it is not difficult for me to keep myself up-to-date with modern mobile technology. 7. <i>R: What do you think about your school applying English learning through mobile devices?</i> - S1: It is convenient for students who have part-time jobs in between English class hours as they can learn English anywhere. <i>R: Do you support mobile learning?</i> - S1: This also applies to all students as they can freely access English learning materials anytime and anywhere. I love this and certainly, I really support it. <i>R: Do you accept learning English via mobile devices?</i> - S1: Obviously, I support and accept M-learning.</p>
<p>1. <i>R: What kinds of mobile devices do you own?</i> - T2: Yes, I am using three smart phones, one iPhone X, one Samsung, an Asus and an iPad. <i>R: Are they some touch devices?</i> - T2: All have big and touching screens. <i>Can they connect to the internet wirelessly?</i> - T2: They can connect Wi-Fi. 2. <i>R: From your point of view, what is learning English using mobile devices?</i> - T2: Learning English through applications and learning online on mobile devices. <i>R: Have you ever used a mobile device to teach English?</i> - T2: I listen to English music to enrich my listening, review sentence structure on E-book via my on my iPhone. 3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i> - T2: No. Not as expensive as a normal English course at class or at language center. <i>R: Are you willing to pay such expenses for teaching English through mobile devices?</i> - T2: Yes, I am willing to pay to learn English. Sure. 4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school? How about the wireless network and technical staff?</i> - T2: Wi-Fi is really strong. Internet connection is really easy. 5. <i>R: In what ways might mobile devices be used in your English teaching?</i> - T2: I do not understand. <i>R: Which English skills and knowledge will be taught through mobile devices?</i> - T2: I will teach English skills like reading, listening and communicate with foreigners directly. 6. <i>R: How can you manipulate mobile devices for teaching English appropriately and effectively?</i> - T2: I am confident I can manipulate well. <i>R: What technical errors have you met on your mobile devices? How can you solve them?</i> - T2: My mobile devices are used to standstill. <i>Do you require assistance from the technical staff?</i> - T2: I only ask experts if mine die.</p>	<p>1. <i>R: What kinds of mobile devices do you own?</i> - S2: I own one iPhone 11 and a MacBook Apple. <i>R: Are they some touch devices?</i> - Yes, of course. <i>R: Can they connect to the internet wirelessly?</i> - S2: Yes, they are touching ones connecting Wi-Fi. 2. <i>R: From your point of view, what is learning English through mobile devices?</i> - S2: Learning on applications downloaded or on websites through mobile devices. <i>R: Have you ever used a mobile device to teach English?</i> - S2: I watch English clips to learn listening and speaking 3. <i>Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i> - S2: No, I think these expenses are quite suitable with the students' budget. It is not too expensive. <i>R: Are you willing to pay such expenses for learning English through mobile devices?</i> - S2: Yes, I pay expenses for mobile devices and online materials. 4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school? How about the wireless network and technical staff?</i> - S2: Not so strict. Wi-Fi is wide over the school and quite strong. - Technical staff is enthusiastic when I need support. 5. <i>R: In what ways might mobile devices be used in your English lessons?</i> - S2: I learn all subjects via mobile devices. <i>R: Which English skills and knowledge will be learnt through mobile devices?</i> - S2: To download video call to chat to foreigners to learn communicative English, listening, reading and writing too. 6. <i>R: How can you manipulate mobile devices for teaching English appropriately and effectively?</i> - S2: I am good at manipulation in simple steps but I think my mobile devices' manipulation to serve learning English. <i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require</i></p>

<p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- T2: I don't worry about new technology, I can acquire them quickly. I will find the answers on the setting item on my mobile devices.</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- T2: It is good and useful for students to learn English. Especially, I can learn a lot of knowledge through mobile devices.</p> <p><i>R: Do you support mobile learning? Do you accept teaching English via mobile devices?</i></p> <p>- T2: Mobile learning supports students' English learning more effective. I concur applying M-learning in English learning and teaching.</p>	<p><i>assistance from the technical staff?</i></p> <p>- S2: My mobile devices are slow sometimes, I delete some programs on them and stop touching for a while, then I use again without technical staff's help.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- S2: I am sometimes have to update new programs when I am working. It really lose my time. I expect to enjoy new technology to be able to update program automatically. I am confident to respond technological changes.</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- S2: It is really convenient everywhere and every time.</p> <p><i>R: Do you support mobile learning? Do you accept learning English via mobile devices?</i></p> <p>- S2: I support and accept applying M-learning at school.</p>
<p>1. <i>R: What kinds of mobile devices do you own? Are they some touch devices?</i></p> <p>- T3: I use a laptop Acer, an iPad Apple, an iPhone 8.</p> <p><i>R: Can they connect to the internet wirelessly?</i></p> <p>- T3: Yeap, they have all touching screens and connecting wireless.</p> <p>2. <i>R: From your point of view, what is learning English using mobile devices?</i></p> <p>- T3: It is learning English through mobile devices at the bus, on the road and everywhere.</p> <p><i>R: Have you ever used a mobile device to teach English?</i></p> <p>- T3: I download ELSA application to teach my children's pronunciation, review complicated structures for teaching sometimes.</p> <p>3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive?</i></p> <p>- T3: Online material is not expensive, but mobile devices expenditure is rather high depends on types of labels</p> <p><i>R: Are you willing to pay such expenses for teaching English through mobile devices?</i></p> <p>- T3: Because I am a student, I cannot afford to buy it, so I see it expensive</p> <p>- T3: Yes, teachers. Because it is worth learning English.</p> <p>4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- T3: Wi-Fi here is so strong.</p> <p><i>R: How about the wireless network and technical staff?</i></p> <p>- T3: Technical staff are quite good at mobile and wireless technology</p> <p>5. <i>R: In what ways might mobile devices be used in your English teaching? Which English skills and knowledge will be taught through mobile devices?</i></p> <p>- T3: I will teach applications on listening, speaking, writing, and pronunciation</p> <p>6. <i>R: How can you manipulate mobile devices for teaching English appropriately and effectively?</i></p> <p>- T3: Mobile devices' manipulation is really easy. Application and program are distinct. I am familiar with manipulation on them.</p> <p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- T3: I restart when my mobiles and laptop are used to freeze. I ask technical staff for help in case they do not</p>	<p>1. <i>R: What kinds of mobile devices do you own? Are they some touch devices?</i></p> <p>- S3: No problems, I have a laptop Dell, a smart phone iPhone 8.</p> <p><i>R: Can they connect to the internet wirelessly?</i></p> <p>- S3: You know they have all touching screens. Yes, they can connect Wi-Fi.</p> <p>2. <i>R: From your point of view, what is learning English through mobile devices?</i></p> <p>- S3: Learning English applications, learning through English dishes.</p> <p><i>R: Have you ever used a mobile device to learn English?</i></p> <p>- S3: I learn grammar on google and speaking on English films through MDs</p> <p>3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- S3: Oh no. Almost students had mobile devices already. Course applications are not expensive. Moreover, using mobile devices is long life. So, it is really not in a short time.</p> <p><i>R: Are you willing to pay such expenses for learning English through mobile devices?</i></p> <p>- S3: Well, I am willing to pay for it.</p> <p>4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- S3: Oh! Wi-Fi is indefinitely strong. I can access Internet everywhere inside.</p> <p><i>R: How about the wireless network and technical staff?</i></p> <p>- S3: Technical staff is enthusiastic when I need support.</p> <p>5. <i>R: In what ways might mobile devices be used in your English lessons? Which English skills and knowledge will be learnt through mobile devices?</i></p> <p>- S3: I can learn almost skills of listening, speaking, reading, and writing, films attached subtitles.</p> <p>6. <i>R: How can you manipulate mobile devices for learning English appropriately and effectively?</i></p> <p>- S3: I get used to using mobile devices; I think I am matter to manipulate them; it is easy to use mobile devices for learning English.</p> <p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- S3: When my laptop and mobile are sometimes rather slow;</p>

<p>operate.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- T3: It is so easy, most of functions on mobile devices are the same, I learn quickly.</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- T3: It is actually good and useful for me to self-study and to enhance English skills, which support me to communicate with foreigners more easily.</p> <p><i>R: Do you support mobile learning? Do you accept teaching English via mobile devices?</i></p> <p>- T1: I advocate and assent M- learning for being exciting and effective.</p>	<p>I delete some game applications then I use again. I ask technical experts if they swift of randomly.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- S3: The changes of new technology really cannot challenge me. I confident to manipulate it well I learnt a lot of knowledge about using technology on mobile devices.</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- S3: I support. It is really more convenient everywhere and every time.</p> <p><i>R: Do you support mobile learning? Do you accept learning English via mobile devices?</i></p> <p>- S3: I completely support mobile learning in students' learning English. I accept M-learning at school.</p>
<p>1. <i>R: What kinds of mobile devices do you own? Are they some touch devices?</i></p> <p>- T4: I have a MacBook Apple, two smart phones, one iPhone X, one HTC which are all touching ones.</p> <p><i>R: Can they connect to the internet wirelessly?</i></p> <p>- T4: Sure. I love sliding on their screens.</p> <p>2. <i>R: From your point of view, what is learning English using mobile devices?</i></p> <p>- T4: It is learning English on mobile devices.</p> <p><i>R: Have you ever used a mobile device to teach English?</i></p> <p>- T4: I practice my speaking with native speakers via Cambly application.</p> <p>3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- T4: Not expensive. Because all students had mobile devices already, Wi-Fi expenditure is not high; I see it is cheap.</p> <p><i>R: Are you willing to pay such expenses for teaching English through mobile devices?</i></p> <p>- Yes, sure, Miss.</p> <p>4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- T1: Wi-Fi is quite good and wide over the campus.</p> <p><i>R: How about the wireless network and technical staff?</i></p> <p>- T4: Oh, this is fine. Technical experts are quite good at mobile and wireless technology.</p> <p>5. <i>R: In what ways might mobile devices be used in your English teaching? Which English skills and knowledge will be taught through mobile devices?</i></p> <p>- T4: I will teach applications on listening, speaking, and vocabulary</p> <p>6. <i>R: How can you manipulate mobile devices for teaching English appropriately and effectively?</i></p> <p>- T4: It is normal. I can have fast manipulation on mobile devices to learn English.</p> <p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- T4: The mobiles are used to standstill, I restart and wait for a while. I just need technical experts when mine do not run.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p>	<p>1. <i>R: What kinds of mobile devices do you own? Are they some touch devices?</i></p> <p>- S4: Of course. I use two Iphones, one Asus laptop and an iPad Apple. Are they yours?</p> <p><i>R: Can they connect to the internet wirelessly?</i></p> <p>- S4: Sure, my father took me to buy them when I passed the entrance university exam.</p> <p>2. <i>R: From your point of view, what is learning English using mobile devices?</i></p> <p>- S4: It is using mobile devices to learn and do exercises everywhere.</p> <p><i>R: Have you ever used a mobile device to learn English?</i></p> <p>- S4: I read English vocabulary and grammar.</p> <p>3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- S4: I see them are not expensive. It is just average price. The price is normal and I can buy them.</p> <p><i>R: Are you willing to pay such expenses for learning English through mobile devices?</i></p> <p>- S4: May be yes, teacher.</p> <p>4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- S4: It is good. Wi-Fi is strong and wide.</p> <p><i>R: How about the wireless network and technical staff?</i></p> <p>- S4: They are crowded and enthusiastic. They support me repair.</p> <p>5. <i>R: In what ways might mobile devices be used in your English lessons? Which English skills and knowledge will be taught through mobile devices?</i></p> <p>- S4: I learn English skills of listening, speaking, reading, and writing.</p> <p>6. <i>R: How can you manipulate mobile devices for learning English appropriately and effectively?</i></p> <p>- S4: Yes, Sure. I manipulate mobile technology well. Technical errors on mobile devices are so simple to me.</p> <p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- S4: My mobile phones are sometimes rather slow; I delete some applications then I swift of MDs. I only need IT experts' help.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p>

<p>- T4: - Sure, I am not afraid of new technology because I can update new software and applications. I love to use new technology all time.</p> <p>7. R: What do you think about your school applying English learning through mobile devices?</p> <p>- T4: It is good and useful for students to learn English. Mobile learning can enhance students' English learning.</p> <p>R: <i>Do you support mobile learning? Do you accept teaching English via mobile devices?</i></p> <p>- T4: I really believe M-learning and accept be applied English learning and teaching.</p>	<p>- S4: It is not difficult, functions on mobile devices are similar. I am not afraid of manipulating new technology on mobile devices because I can catch up with new technology fast through many versions of mobile device types.</p> <p>7. R: What do you think about your school applying English learning through mobile devices?</p> <p>- S4: I am excited to learn English through mobile devices. It is convenient for students to learn English everywhere and every time.</p> <p>R: <i>Do you support mobile learning? Do you accept learning English via mobile devices?</i></p> <p>- S4: I support and accept learning English through MDs.</p>
<p>1. R: <i>What kinds of mobile devices do you own? Are they some touch devices?</i></p> <p>- T5: I own an Iphone 7 plus, one Samsung, a MacBook Apple.</p> <p>R: <i>Can they connect to the internet wirelessly?</i></p> <p>- T5: Definitely.</p> <p>2. R: <i>From your point of view, what is teaching English using mobile devices?</i></p> <p>- T5: It is learning English on mobile devices; sometimes it is combined learning at class.</p> <p>R: <i>Have you ever used a mobile device to teach English?</i></p> <p>- T5: Actually, it is still rather new in Vietnam. It is a convenient learning and teaching method. I just see English films I like to learn advanced structures via my mobile devices.</p> <p>3. R: <i>Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- T5: It is not expensive. The expense to buy a mobile device and Wi-Fi connection is not high for learning English purpose.</p> <p>R: <i>Are you willing to pay such expenses for teaching English through mobile devices?</i></p> <p>- Yes, I am. Sure.</p> <p>4. R: <i>How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- T5: Wi-Fi is quite good and wide over the campuses.</p> <p>R: <i>How about the wireless network and technical staff?</i></p> <p>- T5: There are many technical experts here. They are enthusiastic.</p> <p>5. R: <i>In what ways might mobile devices be used in your English teaching?</i></p> <p>- T5: It is also useful for me to request my students learning vocabulary through online pictures and dictionaries. Moreover, I think teaching language skills through online video clips, films, songs, quizzes and education games is really visual and interesting.</p> <p>R: <i>Which English skills and knowledge will be taught through mobile devices?</i></p> <p>- T5: Anyway, I can teach all skills as listening, speaking, reading and writing.</p> <p>6. R: <i>How can you manipulate mobile devices for teaching English appropriately and effectively?</i></p> <p>- T5: Yeap. May be there is nothing to be difficult to me to treat on my smart phone and laptop. I can manipulate mobile devices myself quite well.</p> <p>R: <i>What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p>	<p>1. R: <i>What kinds of mobile devices do you own? Are they some touch devices?</i></p> <p>- S5: I use an iPhone 6 plus, one Samsung, one HTC and a MacBook Apple as well as a laptop Asus.</p> <p>R: <i>Can they connect to the internet wirelessly?</i></p> <p>- S5: Sure. They connect Internet well.</p> <p>2. R: <i>From your point of view, what is learning English through mobile devices?</i></p> <p>- S5: Learning English on applications, websites through mobile devices.</p> <p>R: <i>Have you ever used a mobile device to learn English?</i></p> <p>- S5: I just look up new words via online dictionaries via my SP.</p> <p>3. R: <i>Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- S5: It is really cheap for teachers to teach English. It is not high price with almost students today either because their family are willing to investigate for their children's learning. Or students have part time salary; they can buy value mobile devices themselves.</p> <p>R: <i>Are you willing to pay such expenses for learning English through mobile devices?</i></p> <p>- S5: Yes of course, sure. And I equipped all already. I am ready to do use English mobile learning.</p> <p>4. R: <i>How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- S5: It is quite good. Wi-Fi is wide.</p> <p>R: <i>How about the wireless network and technical staff?</i></p> <p>- S5: Technical staff's office is near classrooms. It is easy to call for help.</p> <p>5. R: <i>In what ways might mobile devices be used in your English lessons? Which English skills and knowledge will be learnt through mobile devices?</i></p> <p>- S5: I learn English skills to look up vocabulary by pictures, learning listening, speaking, reading, and writing.</p> <p>6. R: <i>How can you manipulate mobile devices for teaching English appropriately and effectively?</i></p> <p>- S5: Rather good. I can manipulate my mobile devices to learn English well.</p> <p>R: <i>What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- S5: Mobiles and Samsung tablet are sometimes rather stand-by, I restart my MDs immediately, and I wait for a little then use again. I don't need experts' help.</p> <p>R: <i>Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can</i></p>

<p>- T5: My MDs are just slow sometimes. I will restart. I had expert repair them once. <i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i> - T5: I think it is not difficult, I read the guiding book to use to explore up-to-date functions on mobile devices. Old and new technology integrated on mobile devices are similar, I will be well-trained to use new technology on mobile devices so fast. 7. <i>R: What do you think about your school applying English learning through mobile devices?</i> - T5: That is great. If mobile technology can replace teaching English at class, it is much more convenient and effective. <i>R: Do you support mobile learning? Do you accept teaching English via mobile devices?</i> - T5: However, class meeting should be arranged to preview and complete the exam like middle and final exam. In general, I see it useful and convenient; I completely appropriate and support English mobile learning.</p>	<p><i>you learn about these changes?</i> - S5: It is interesting to be slide and touch on screen of modern mobile devices. I love to explore something new; I can adapt really fast because I can use them skillfully in a short time. I learnt to use it in the internet and my friends immediately. I never worry about changes of new technology 7. <i>R: What do you think about your school applying English learning through mobile devices?</i> - S5: It is good. It is convenient for students to learn English everywhere and every time. <i>R: Do you support mobile learning? Do you accept learning English via mobile devices?</i> - S5: I support mobile learning in students' learning English. I accept M-learning at school.</p>
<p>1. <i>R: What kinds of mobile devices do you own? And are they some touch devices?</i> - T6: I am using an Oppo, a Samsung, a laptop and an iPad Apple. <i>R: Can they connect to the internet wirelessly?</i> - T6: Yes, they are smart devices all and can connect Internet well, right! Now we live among technology revolution 4.0. 2. <i>R: From your point of view, what is learning English using mobile devices?</i> - T6: Oh, just simple. Mobile learning in general and learning English in particular is learn lessons, doing exercises, complete assignment on mobile devices. <i>R: Have you ever used a mobile device to teach English?</i> - T6: I download ELSA application to teach my children's pronunciation, review complicated structures for teaching sometimes. 3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i> - T6: No expensive. Even it is cheap because we buy one device to learn English many years. <i>R: Are you willing to pay such expenses for teaching English through mobile devices?</i> - T6: It is big profit. Of course, Miss. 4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i> - T6: Yeap. I see that Wi-Fi is wide and so strong. I can surf the internet all time. <i>R: How about the wireless network and technical staff?</i> - T6: Technical staff is crowded and enthusiastic to support users. 5. <i>R: In what ways might mobile devices be used in your English teaching?</i> - T6: Well, I don't know what I will do ... I will guide my students to learn and complete assignments. <i>R: Which English skills and knowledge will be taught through mobile devices?</i> - T6: Sure. I will teach all students' skills of listening, speaking, reading, and writing. 6. <i>R: How can you manipulate mobile devices for teaching</i></p>	<p>1. <i>R: What kinds of mobile devices do you own? Are they some touch devices?</i> - S6: Yes, I am using three smart phones, one iPhone X, one Samsung, an Asus and an iPad. <i>R: Can they connect to the internet wirelessly?</i> - S6: All have big and touching. 2. <i>R: From your point of view, what is teaching English through mobile devices?</i> - S6: Learning on teaching and learning English applications through mobile devices. <i>R: Have you ever used a mobile device to teach English?</i> - S6: I check English grammatical errors on Google via my smartphones. 3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i> - S6: Oh I find that expense for mobile learning is cheap. Just some million dong for a long learning process. <i>R: Are you willing to pay such expenses for learning English through mobile devices?</i> - S6: Well, I am willing to pay for it. 4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i> - S6: Quite strong. Wi-Fi is wide over the school. <i>R: How about the wireless network and technical staff?</i> - S6: Technical staff's office is near classrooms. It is easy to call for help. 5. <i>R: In what ways might mobile devices be used in your English lessons?</i> - S6: Absolutely, I see English film for learning English, uh huh! <i>R: Which English skills and knowledge will be learnt through mobile devices?</i> - S6: I will learn English vocabulary and sentence translation. I don't image what next I do on my smartphones. 6. <i>R: How can you manipulate mobile devices for learning English appropriately and effectively?</i> - S6: It is so good, so fast. I can solve simple technical errors. <i>R: What technical errors have you met on your mobile</i></p>

<p>English appropriately and effectively?</p> <p>- T6: I think it is easy. I am familiar with using mobile devices many years. I can use it well.</p> <p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- T6: My phones are used to be freeze sometimes, I delete all programs running, then I use again. I just need technical staffs when mine do not operate.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- T6: I love to enjoy facilities of modern IT technology. I wish I can touch on technology 5.0 soon. I can update and explore all new functions on my mobile devices. Sure.</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- T6: It is really good, and convenient for all objectives of learners to learn from beginner to advanced level.</p> <p><i>R: Do you support mobile learning? Do you accept teaching English via mobile devices?</i></p> <p>- T6: Yes, I support and agree English mobile learning.</p>	<p><i>devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- S6: Sometimes my mobiles and tablet are stand-by, I stop using a little then I use again. I will ask for technical staffs' help at my school when I cannot repair.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- S6: Oh I am bored with current mobile technology. I wish to possess ones attaching more breakthrough functions. But not now. Maybe iPhone 12 Promax are to be a little bit. I still expect to experience modern technology.</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- S6: It is useful for learning English</p> <p><i>R: Do you support mobile learning? Do you accept learning English via mobile devices?</i></p> <p>- S6: Yes, I support and accept English mobile learning.</p>
<p>1. <i>R: What kinds of mobile devices do you own? Are they some touch devices? Can they connect to the internet wirelessly?</i></p> <p>- T7: Yeap, I use all touching and connecting wireless. A laptop Acer, one iPhone X and a MacBook Apple.</p> <p>2. <i>R: From your point of view, what is learning English using mobile devices?</i></p> <p>- T7: Well. It is learning English on mobile devices like smart phones, laptops, tablets, iPads, etc.</p> <p><i>R: Have you ever used a mobile device to teach English?</i></p> <p>- T7: I download applications like Cake, ELSA to practice speaking and listening every day.</p> <p>3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- T7: Not expensive. I see it is not expensive; I can save money within some months to buy mobile devices. And Wi-Fi connection is cheap.</p> <p><i>R: Are you willing to pay such expenses for teaching English through mobile devices?</i></p> <p>-T7: Yes, I am willing to pay expense for mobile devices and online materials.</p> <p>4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- T7: Wi-file here is really strong.</p> <p><i>R: How about the wireless network and technical staff?</i></p> <p>- T7: Many enthusiastic IT experts can help users.</p> <p>5. <i>R: In what ways might mobile devices be used in your English teaching?</i></p> <p>- T7: Well. I think I will teach all students' skills of listening, speaking, reading, and writing.</p> <p><i>R: Which English skills and knowledge will be taught through mobile devices?</i></p> <p>- T7: Moreover, grammar and vocabulary through films, pictures.</p> <p>6. <i>R: How can you manipulate mobile devices for teaching English appropriately and effectively?</i></p> <p>- T7: I believe my manipulation on my mobile devices is good enough to teach English for students. I can solve the errors myself.</p>	<p>1. <i>R: What kinds of mobile devices do you own? Are they some touch devices?</i></p> <p>- S7: A laptop Dell, smart phones, one iPhone 11 and a MacBook Apple.</p> <p><i>R: Can they connect to the internet wirelessly?</i></p> <p>- S7: Yeap, my devices are all touching and connecting wireless network.</p> <p>2. <i>R: From your point of view, what is learning English through mobile devices?</i></p> <p>- S7: Learning English through mobile devices like smart phone and an iPad.</p> <p><i>R: Have you ever used a mobile device to learn English?</i></p> <p>- S7: I usually translate English-Vietnamese through google translation via IPad and my cellphone</p> <p>3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- S7: That is no problems with such expenditure. I had smart phone, laptop already, Wi-Fi is equipped by school here, at home and wherever also, it is just normal expense.</p> <p><i>R: Are you willing to pay such expenses for learning English through mobile devices?</i></p> <p>- S7: Yes, sure. I am willing to pay it for teaching English</p> <p>4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- S7: In present, the facilities are equipped quite strongly. Wi-Fi is wide over the school.</p> <p><i>R: How about the wireless network and technical staff?</i></p> <p>- S7: They are kind and good at specialized knowledge. They support students quickly.</p> <p>5. <i>R: In what ways might mobile devices be used in your English lessons?</i></p> <p>- S7: Maybe, I will register to learn English on mobile devices at home without at class. I am lazy to get school.hum hum. I feel M-learning excited and flexible.</p> <p><i>R: Which English skills and knowledge will be learnt through mobile devices?</i></p> <p>- S7: I will learn English through films attached Viet sub, English music video or vocabulary and reading.</p>

<p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- T7: My mobiles are stand-by, I swift of a little. I will ask for technical staffs' help if I cannot repair.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- T7: I am lazy to change anything. I just want to use present technology. It is not possible for me to be trained using new thing now. There is not an aptitude for implementing technology.</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- T7: It is useful and reasonable with learning English today. Learners are almost busy in limited time.</p> <p><i>R: Do you support mobile learning? Do you accept teaching English via mobile devices?</i></p> <p>- T7: I support and accept.</p> <p>- I support and accept learning English through MDs</p>	<p>6. <i>R: How can you manipulate mobile devices for learning English appropriately and effectively?</i></p> <p>- S7: I think it is simple. I can manipulate my mobile devices fast</p> <p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- S7: Sometimes my mobiles are used to be freezing, I delete all program running and wait for some minutes then I use again. I just need technical staffs when mine are unavailable.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- S7: I am willing to learn to use new functions on mobile devices. I tried many versions of smart phones, tablets, laptops, etc. The old and new functions are just familiar, they are not difficult to me. I love to enjoy changes of new technology.</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- S7: It is useful and convenient for learning English.</p> <p><i>R: Do you support mobile learning? Do you accept learning English via mobile devices?</i></p> <p>- S7: I believe in mobile learning in students' learning English. Certainly, I accept M-learning.</p>
<p>1. <i>R: What kinds of mobile devices do you own? Are they some touch devices?</i></p> <p>- T8: I am using Iphone 6 plus and one Sony Ericson and a laptop Asus.</p> <p><i>R: Can they connect to the internet wirelessly?</i></p> <p>- T8: They are touching screens and connect wireless system.</p> <p>2. <i>R: From your point of view, what is learning English using mobile devices?</i></p> <p>- T8: Simply, it is learning English through mobile devices, not always learning at class all time, even no learning at class.</p> <p><i>R: Have you ever used a mobile device to teach English?</i></p> <p>- T8: I learn speaking & listening by chatting to my wife and my daughter in English via zalo or messenger and English audios every day</p> <p>3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- T8: It may be expensive to me because my family is rather poor. However, its price is not high with others.</p> <p><i>R: Are you willing to pay such expenses for teaching English through mobile devices?</i></p> <p>- T8: If learning English through mobile devices must be used for all students as a principle, I will try to pay money to use mobile learning</p> <p>4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- T8: Well. Wi-Fi is strong and wide over the campus.</p> <p><i>R: How about the wireless network and technical staff?</i></p> <p>- T8: There are many technical experts here. They are enthusiastic.</p> <p>5. <i>R: In what ways might mobile devices be used in your English teaching?</i></p> <p>- T8: Indefinitely, all English skills and lessons.</p> <p><i>R: Which English skills and knowledge will be taught</i></p>	<p>1. <i>R: What kinds of mobile devices do you own? Is Are they some touch devices?</i></p> <p>- S8: That's fine. I am using iPhone 11 and one Oppo and a laptop Asus.</p> <p><i>R: Can they connect to the internet wirelessly?</i></p> <p>- S8: They are touching screens and connect wireless system.</p> <p>2. <i>R: From your point of view, what is learning English through mobile devices?</i></p> <p>- S8: Learning listening on applications downloaded from internet on mobile devices.</p> <p><i>R: Have you ever used a mobile device to learn English?</i></p> <p>- S8: I like to see English cartoon to practice speaking. I see it useful for me.</p> <p>3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- S8: Why is it expensive? Even it is really cheap.</p> <p><i>R: Are you willing to pay such expenses for learning English through mobile devices?</i></p> <p>- S8: Yes, I will pay it to support my teaching English of course.</p> <p>4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- S8: Wi-Fi may be good, I don't know because I haven't used it, I use 5G myself.</p> <p><i>R: How about the wireless network and technical staff?</i></p> <p>- S8: I see technical staff help teachers and students well. They guide students carefully.</p> <p>5. <i>R: In what ways might mobile devices be used in your English lessons?</i></p> <p>- S8: Yeap! I practice my English online with my friends for speaking better.</p> <p><i>R: Which English skills and knowledge will be learnt through mobile devices?</i></p> <p>- S8: I can learn almost skills of listening, speaking,</p>

<p><i>through mobile devices?</i> I can teach English through films, music to learn English skills. I can translate English words to learn reading comprehension. 6. R: How can you manipulate mobile devices for teaching English appropriately and effectively? - T8: It is easy to manipulate mobile devices because their functions are plentiful, however, simple to me. R: <i>What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i> - T8: So I can manipulate my mobile devices well. I ask technical staffs' help when my mobiles broke. R: <i>Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i> - T8: I do not worry about using mobile devices among changes of new technology, The sellers teach me to use. The guiding is willing to teach me in the setting item. 7. R: What do you think about your school applying English learning through mobile devices? - T8: Convenient for students who have part time job duplicating with English class hours, can learning English on mobile devices. R: <i>Do you support mobile learning? Do you accept learning English via mobile devices?</i> - T8: And, for all students' learning English. Of course I support and accept mobile learning all.</p>	<p>reading, and writing, films attached subtitles. 6. R: How can you manipulate mobile devices for learning English appropriately and effectively? - S8: I am confident to use mobile devices for learning English because I use mobile every day. I can manipulate well myself. R: <i>What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i> - S8: I just meet some small errors like freezing, slow. I will restart. Once, my tablet doesn't operate, I have IT expert repair. R: <i>Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i> - S8: I believe I can adapt modern IT technology quickly. I will not be in trouble when new technology changes day by day. I will refer the usage on YouTube and explore the program within only 3 three days by myself. 7. R: What do you think about your school applying English learning through mobile devices? - S8: It is good and convenient for students' learning English. I support totally. R: <i>Do you support mobile learning? Do you accept learning English via mobile devices?</i> - S8: I support learning English through mobile devices. I accept M-learning always.</p>
<p>1. R: <i>What kinds of mobile devices do you own?</i> R: <i>Are they some touch devices?</i> R: <i>Can they connect to the internet wirelessly?</i> - T9: I use four mobile devices: one iPhone X, a Samsung and a MacBook Apple. I can touch screens and connect Wi-Fi. 2. R: <i>From your point of view, what is learning English using mobile devices?</i> - T9: In think it likes mobile learning that learning English skills through applications online on mobile devices. R: <i>Have you ever used a mobile device to teach English?</i> - T9: I see films and listen to English clips every day through my iPad and smartphones. 3. R: <i>Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i> - T9: Not as expensive as tuition for learning English course at class R: <i>Are you willing to pay such expenses for teaching English through mobile devices?</i> - Yes, I am willing to pay it. 4. R: How do you assess the facilities equipped to serve English mobile learning at your school? - T9: Wi-Fi is wide quite strong. R: <i>How about the wireless network and technical staff?</i> - T8: Technical staff is crowded and enthusiastic to support users. 5. R: In what ways might mobile devices be used in your English teaching? - T9: I will teach English skills like reading, listening and communicate with foreigners directly. 6. R: How can you manipulate mobile devices for teaching English appropriately and effectively? - T9: Yes, I touch my smart phone all time. I do not meet</p>	<p>1. R: What kinds of mobile devices do you own? <i>Are they some touch devices?</i> <i>Can they connect to the internet wirelessly?</i> - S9: I own two smart phones, one iPhone 8, an Oppo and a MacBook Apple. They are touching screens and connect Wi-Fi. 2. R: <i>From your point of view, what is learning English through mobile devices?</i> - S9: Learning English through mobile phones, iPads, Tablets at class, at home, at work, etc. R: <i>Have you ever used a mobile device to learn English?</i> - S9: I practice grammar and vocabulary on teaching English clips on YouTube. 3. R: <i>Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i> - S9: Teachers and students had mobile devices already. Wireless is installed every-where now. So they do not have to spend much money more for mobile learning. R: <i>Are you willing to pay such expenses for learning English through mobile devices?</i> - S9: Well, I am willing to pay for it. 4. R: How do you assess the facilities equipped to serve English mobile learning at your school? - S9: I use my MDs for films, clips well under Wi-Fi here. R: <i>How about the wireless network and technical staff?</i> - S9: I have ever had a man in technical staff room repair my smartphones, he is enthusiastic to help me. 5. R: In what ways might mobile devices be used in your English learning? <i>Which English skills and knowledge will be learnt through mobile devices?</i> - S9: I learn English skills of listening, speaking, reading, and writing. 6. R: How can you manipulate mobile devices for</p>

<p>difficulty in using my mobile devices..</p> <p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- T9: If teaching English through mobile devices implemented, I am confident to solve errors well to use mobile learning effectively without experts</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- T9: It is not difficult, modern functions are similar present ones. I am not only afraid of them but also I am so excited to enjoy new technology on mobile devices.</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- T9: It is really convenient everywhere and every time.\</p> <p><i>R: Do you support mobile learning? Do you accept teaching English via mobile devices?</i></p> <p>- T9: Totally, I support and accept teaching and learning English through mobile devices.</p>	<p>learning English appropriately and effectively?</p> <p>- S9: Surely. I am good at manipulation on mobile devices. For technical errors on mobile devices, I can solve because they are so simple.</p> <p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- S9: The mobiles are used to standstill; I restart and wait for a while. I just need technical experts when mine do not run.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- S9: So interesting. I modern technology on my mobile devices changes, I will not be afraid update new software and applications. I can't stand to see people use modern ones while I do not. I will buy one then, learn the usage at the mobile store and explore the smart functions in my new mobile devices.</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- S9: That is so exciting. I like to learn English through mobile devices. I expect it.</p> <p><i>R: Do you support mobile learning? Do you accept learning English via mobile devices?</i></p> <p>- S9: I believe mobile learning make learning English more effective. I agree M-learning applied at school.</p>
<p>1. <i>R: What kinds of mobile devices do you own?</i></p> <p><i>R: Are they some touch devices?</i></p> <p>- T10: I use one Iphone9, one iPhone X and a MacBook Apple.</p> <p><i>R: Can they connect to the internet wirelessly?</i></p> <p>- T10: You see they are touching screens and connecting Wi-Fi ones.</p> <p>2. <i>R: From your point of view, what is learning English using mobile devices?</i></p> <p>- T10: It is not learning English at class and teachers all time. Learners can learn English through mobile devices conveniently.</p> <p><i>R: Have you ever used a mobile device to teach English?</i></p> <p>- T10: I always write email and letters in English for my students and my professor via my MDs.</p> <p>3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- T10: Certainly, is not expensive at all. Even, I can to pay to use it.</p> <p><i>R: Are you willing to pay such expenses for teaching English through mobile devices?</i></p> <p>- T10: I am willing to pay for it.</p> <p>4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- T10: Wireless system is rather well-equipped. I can access Internet everywhere at school.</p> <p><i>R: How about the wireless network and technical staff?</i></p> <p>- T10: Technical staff usually go around to support us.</p> <p>5. <i>R: In what ways might mobile devices be used in your English teaching?</i></p> <p>- T10: Uh huh! All lessons, by the way! I think I will set up one forum for students to exchange and practice anytime and anyplace.</p> <p><i>R: Which English skills and knowledge will be taught</i></p>	<p>1. <i>R: What kinds of mobile devices do you own?</i></p> <p>- S10: Laptop Dell, two smart phones, one iPhone 8, one iPhone 11 and a MacBook Apple.</p> <p><i>R: Are they some touch devices?</i></p> <p>- S10: Yes! Sure.</p> <p><i>R: Can they connect to the internet wirelessly?</i></p> <p>- S10: Yeap! touching screens and connecting Wi-Fi ones.</p> <p>2. <i>R: From your point of view, what is learning English through mobile devices?</i></p> <p>- S10: Learning English pronunciation, listening, reading on mobile devices, on websites.</p> <p><i>R: Have you ever used a mobile device to learn English?</i></p> <p>- S10: I learn reading and writing through English text on Google via my mobile devices.</p> <p>3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- S10: Of course no. I find expenditure for learning English through mobile devices is not expensive.</p> <p><i>R: Are you willing to pay such expenses for learning English through mobile devices?</i></p> <p>- S10: I am willing to pay for mobile learning.</p> <p>4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- S10: I have used Wi-Fi here for 4 years. It's stable enough for students to surf internet on their mobile devices.</p> <p><i>R: How about the wireless network and technical staff?</i></p> <p>- S10: I see the technical staff í really professional, they repair Wi-Fi network when it is slow sometimes.</p> <p>5. <i>R: In what ways might mobile devices be used in your English lessons?</i></p> <p>- S10: I ... I want to speak and contact with my teachers and classmates in English all day. That is useful for my speaking.</p>

<p><i>through mobile devices?</i></p> <p>- T10: I will teach applications on listening, speaking, writing, and pronunciation.</p> <p>6. <i>R: How can you manipulate mobile devices for teaching English appropriately and effectively?</i></p> <p>- T10: I can treat on my smart phone and laptop well when they are in troubles without technical experts' support.</p> <p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- T10: I can manipulate my mobile devices myself to serve mobile learning. I delete some programs on phones then I swift of MDs.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- T10: I believe mobile devices' new or ole functions are similar, can learn use them quickly. New technology make me interesting to me</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- T10: I support. It is really more convenient everywhere and every time.</p> <p><i>R: Do you support mobile learning? Do you accept teaching English via mobile devices?</i></p> <p>- T10: I support mobile learning and accept M-learning at school completely</p>	<p><i>R: Which English skills and knowledge will be learnt through mobile devices?</i></p> <p>- S10: I learn English skills to look up vocabulary by pictures, learning listening, speaking, reading, and writing.</p> <p>5. <i>R: How can you manipulate mobile devices for learning English appropriately and effectively?</i></p> <p>- S10: Rather good. I can manipulate my mobile devices to learn English well.</p> <p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- S10: I always restart when my mobiles and laptop are used to standstill; I need technical staff when they do not operate.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- S10: Oh no problems with me. Most functions, programs on mobile devices are the same, I can download many guiding applications and files to learn usage of modern technology quickly</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- S10: It is good and convenient for students to learn English when I am free.</p> <p><i>R: Do you support mobile learning? Do you accept learning English via mobile devices?</i></p> <p>- S10: Mobile learning makes learning English more exciting. I concur M-learning to be applied in English learning and teaching.</p>
<p>1. <i>R: What kinds of mobile devices do you own?</i></p> <p><i>R: Are they some touch devices?</i></p> <p>- T11: I have two smart phones, one Iphone 8, one iPhone 7, a laptop Dell, a laptop HP.</p> <p><i>R: Can they connect to the internet wirelessly?</i></p> <p>- T11: Touching screens and connecting Wi-Fi ones.</p> <p>2. <i>R: From your point of view, what is teaching English using mobile devices?</i></p> <p>- T11: Surely. It is new learning method and quite popular on the world. It is learning English on mobile devices.</p> <p><i>R: Have you ever used a mobile device to teach English?</i></p> <p>- T11: I watch teaching listening skill clips on YouTube to improve my teaching on my MDs.</p> <p>3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- T11: Yes, I see it is cheap with my income.</p> <p><i>R: Are you willing to pay such expenses for teaching English through mobile devices?</i></p> <p>- T11: Certainly, I pay mobile teaching fee. I am ready to enjoy hi-tech technology always.</p> <p>4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- T11: Wi-Fi here is strong. I can use it to check email and refer materials well.</p> <p><i>R: How about the wireless network and technical staff?</i></p> <p>- T11: Technical experts are really qualified and friendly</p> <p>5. <i>R: In what ways might mobile devices be used in your English teaching?</i></p> <p>- T11: Of course, I use all functions of mobile devices to design teaching frameworks for the best teaching all skills on</p>	<p>1. <i>R: What kinds of mobile devices do you own?</i></p> <p><i>R: Are they some touch devices?</i></p> <p>- S11: I have three smart phones, one iPhone 6, one Samsung, one HTC, a laptop Asus.</p> <p><i>R: Can they connect to the internet wirelessly?</i></p> <p>- S11: They are touching screens and connecting Wi-Fi ones.</p> <p>2. <i>R: From your point of view, what is learning English through mobile devices?</i></p> <p>- S11: Learning English skills through mobile devices.</p> <p><i>R: Have you ever used a mobile device to learn English?</i></p> <p>- S11: I learn pronunciation through English songs and films on my iPhone.</p> <p>3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i></p> <p>- S11: Not expensive, it is just cheap and useful for teachers to teach English in the revolution 4.0.</p> <p><i>R: Are you willing to pay such expenses for learning English through mobile devices?</i></p> <p>- S11: Yes of course, sure. I am willing to pay for it.</p> <p>4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i></p> <p>- S11: Yes, Wi-Fi here is quite strong and regular. I can see YouTube all time under wireless here.</p> <p><i>R: How about the wireless network and technical staff?</i></p> <p>- S11: Technical staff is crowded and hard-working. They go around to check Wi-Fi errors and help students solve problems on mobile devices.</p> <p>5. <i>R: In what ways might mobile devices be used in your English lessons?</i></p>

<p>mobile devices. <i>R: Which English skills and knowledge will be taught through mobile devices?</i> - T11: I will teach applications on listening, speaking, and vocabulary. 6. <i>R: How can you manipulate mobile devices for teaching English appropriately and effectively?</i> - T11: It is easy to manipulate mobile devices. I am used to using for a long time. I can use mobile devices to teach English. I delete some programs opening then I turn of MDs. <i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i> - T11: I am not scared any errors on my devices, that is not problematic to me except they broke, I will throw. <i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i> - T11: I am excited to use modern mobile technology. It is available for me to explore new functions on mobile devices basing on present programs' usage 7. <i>R: What do you think about your school applying English learning through mobile devices?</i> - T11: I am excited to learn English through mobile devices. It is convenient for students to learn English everywhere and every time. <i>R: Do you support mobile learning? Do you accept learning English via mobile devices?</i> - T11: I concur and approve learning English through MDs. I hope M-learning is applied in English learning and teaching.</p>	<p>- S11: I will learn English vocabulary and writing. <i>R: Which English skills and knowledge will be learnt through mobile devices?</i> - S11: I will learn English vocabulary and sentence translation. 6. <i>R: How can you manipulate mobile devices for learning English appropriately and effectively?</i> - S11: I see my touches are so accurate and fast. So I can solve technical errors and I can manipulate mobile devices well. <i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i> - S11: My mobiles and laptop are used to freeze; I only ask experts if my devices die. <i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i> - S11: - I don't only worry about new technology changing daily, but also I love it because I can acquire them quickly. By my technical experiences, I will find the answer keys for solving new functions and modern troubles. 7. <i>R: What do you think about your school applying English learning through mobile devices?</i> - S11: I see it is really interesting to learn English through mobile devices. It is useful and convenient learning English. <i>R: Do you support mobile learning? Do you accept learning English via mobile devices?</i> - S11: I support and accept M- learning for being exciting and effective.</p>
<p>1. <i>R: What kinds of mobile devices do you own?</i> <i>R: Are they some touch devices?</i> - T12: Yes, sure. I have a smart phone iPhone X, a HTC and a MacBook Apple. <i>R: Can they connect to the internet wirelessly?</i> - T12: Absolutely, I slide them touching screens devices, connecting wireless. 2. <i>R: From your point of view, what is learning English using mobile devices?</i> <i>R: Have you ever used a mobile device to teach English?</i> - T12: Well. It is learning English skills on mobile devices. I am reviewing speaking skill and grammar with my group on face book via my mobile phones and iPad for IELTS test. 3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i> - T12: I think it is not expensive. Wi-Fi connection is strong and wide <i>R: Are you willing to pay such expenses for teaching English through mobile devices?</i> - Yes, I am willing to pay. Sure. 4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i> - T12: Wi-Fi is wide and strong. <i>R: How about the wireless network and technical staff?</i> - T12: I see it is easy to call technical staff for help because They are friendly and professional 5. <i>R: In what ways might mobile devices be used in your English teaching?</i></p>	<p>1. <i>R: What kinds of mobile devices do you own?</i> <i>R: Are they some touch devices?</i> <i>R: Can they connect to the internet wirelessly?</i> - S12: I own two smart phones, one iPhone 8, one iPhone 11 and a MacBook Apple, a laptop Dell. They are touching screens devices connecting wireless. 2. <i>R: From your point of view, what is learning English through mobile devices? Have you ever used a mobile device to teach English?</i> - S12: Learning English by mobile technology like smart phones, IPads. - I see Vietnamese films with English subtitle to learn speaking. 3. <i>R: Do you think the expenses for mobile learning including mobile devices, Wi-Fi, online materials, etc. are expensive? Why or why not?</i> - S12: Oh I find that expense for mobile learning is cheap. Just some million dongs for a long learning process. <i>R: Are you willing to pay such expenses for learning English through mobile devices?</i> - S12: Well, I am willing to pay for expense to use mobile learning. 4. <i>R: How do you assess the facilities equipped to serve English mobile learning at your school?</i> - S12: In general, Wi-Fi in this campus is rather strong, but not well-proportioned. <i>R: How about the wireless network and technical staff?</i> - S12: I can see clips on YouTube well thanks to strong Wi-Fi. - IT experts are crowded and qualified to do support</p>

<p>- T12: Anyway, I can teach all skills as listening, speaking, reading and writing. It is also useful for me to request my students learning vocabulary through online pictures and dictionaries.</p> <p><i>R: Which English skills and knowledge will be taught through mobile devices?</i></p> <p>- T12: Moreover, I think teaching language skills through online video clips, films, songs, quizzes and education games is really visual and interesting.</p> <p>6. <i>R: How can you manipulate mobile devices for teaching English appropriately and effectively?</i></p> <p>- T12: I am confident to manipulate my mobile devices. I think my abilities are fine enough to use mobile devices for English teaching.</p> <p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- T12: Errors happened are not too serious to worry. I stop touching for a while, then I use again without expert staff's help</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- T12: I am willing to learn to use new functions on mobile devices. I tried many versions of smart phones, tablets, laptops, etc. The old and new functions are just familiar, they are not difficult to me. I love to enjoy changes of new technology</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- T12: It is good. It is convenient for students to learn English everywhere and every time.</p> <p><i>R: Do you support mobile learning? Do you accept learning English via mobile devices?</i></p> <p>- T12: I all support and accept M-learning at school.</p>	<p>users.</p> <p>5. <i>R: In what ways might mobile devices be used in your English lessons?</i></p> <p>- S12: I think I will use mobile devices to learn all subjects, not only English. I mean I mobile devices are really handy and convenient to learn everywhere and everytime.</p> <p><i>R: Which English skills and knowledge will be learnt through mobile devices?</i></p> <p>- S12: I will learn English through films attached Viet sub, English music video or vocabulary and reading.</p> <p>6. <i>R: How can you manipulate mobile devices for learning English appropriately and effectively?</i></p> <p>- S12: I believe use of mobile devices is simple. I can manipulate my mobile devices fast and recover usual errors.</p> <p><i>R: What technical errors have you met on your mobile devices? How can you solve them? Do you require assistance from the technical staff?</i></p> <p>- S12: My laptop is used to unavailable; I have them be repaired by experts when my iPhone is gone.</p> <p><i>R: Are you able to keep yourself updated with the ceaseless changes of modern technology? If yes, how can you learn about these changes?</i></p> <p>- S12: Wow, the more modern technology changes, the more excited the youth are. I am confident to adapt new technology forwards. When I do not know to use modern functions on my mobile device, I will search on google and get tin the setting item to find the answer</p> <p>7. <i>R: What do you think about your school applying English learning through mobile devices?</i></p> <p>- S12: I support mobile learning; I see it useful and convenient.</p> <p><i>R: Do you support mobile learning? Do you accept learning English via mobile devices?</i></p> <p>- S12: I concur and support mobile learning because it is a new learning approach that can help students learn English well.</p>
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APPENDIX 6: CLASSROOM OBSERVATION SHEET

Time	Observation contents	Class 1		Class 2		Class 3		Class 4		Class 5	
		Teachers	Students	Teachers	Students	Teachers	Students	Teachers	Students	Teachers	Students
Section 1: Mobile device ownership											
1	Mobile devices used in the class	X owning smart phones, iPads, Tablets, laptops	X owning smart phones, iPads, Tablets, laptops	X Owning smart phones, laptops	X Owning smart phones, iPads, Tablets, laptops	X owning smart phones, iPads, Tablets, laptops	X owning smart phones, iPads, Tablets, laptops	X owning smart phones, iPads, Tablets, laptops	X owning smart phones, iPads, Tablets, laptops	X owning smart phones, iPads, Tablets, laptops	X owning smart phones, iPads, Tablets, laptops
2	Students'/teachers' mobile devices can connect the internet.	X	X	X	X	X	X	X	X	X	X
3	Technical department	X Locating nearby classrooms, more than 5 technical experts and 5 IT engineers		X Locating far from classrooms, more than 5 technical experts and 7 IT engineers	X	X Locating nearby classrooms, more than 5 technical experts and 5 IT engineers	X	X Locating nearby classrooms, more than 5 technical experts and 5 IT engineers		X Locating nearby classrooms, more than 5 technical experts and 5 IT engineers	
4	Technical staff	X Being enthusiastic; Being good at profession skill; being on duty at office and going along classrooms to be willing to support all time	X	X Being enthusiastic; Being good at professional skill; being on duty at office and going along classrooms to be willing to support all time	X	X Being enthusiastic; Being good at profession skill; being on duty at office and going along classrooms to be willing to support all time	X	X Being enthusiastic; Being good at profession skill; being on duty at office and going along classrooms to be willing to support all time	X	X Being enthusiastic; Being good at profession skill; being on duty at office and going along classrooms to be willing to support all time	X

5	Wireless system is equipped fully at class.	X equipping strongly and overall the school									
Section 2: Abilities to manipulate mobile technology											
6	Students/teacher accesses the internet through their mobile devices.	X accessing Internet via Wi-Fi at school all time	X accessing Internet via Wi-Fi at school all time	X Accessing Internet via Wi-Fi at school all time	X Accessing Internet via Wi-Fi at school all time	X accessing Internet via Wi-Fi at school all time	X accessing Internet via Wi-Fi at school all time	X accessing Internet via Wi-Fi at school all time	X accessing Internet via Wi-Fi at school all time	X accessing Internet via Wi-Fi at school all time	X accessing Internet via Wi-Fi at school all time
7	Students/teacher can manipulate on mobile devices quickly through their performance speed on the mobile leaning system.	X quick and accurate touches; solving and repairing technical errors on smart phones, iPads, Tablets, laptops without calling for help from technical staff.	X quick and accurate touches; solving and repairing technical errors on smart phones, iPads, Tablets, laptops without calling for help from technical staff.	X Quick and accurate touches; solving and repairing technical errors on smart phones, iPads, Tablets, laptops without calling for help from technical staff.	X Quick and accurate touches; Solving and repairing technical errors on smart phones, iPads, Tablets, laptops without calling for help from technical staff.	X quick and accurate touches; solving and repairing technical errors on smart phones, iPads, Tablets, laptops without calling for help from technical staff.	X Quick and accurate touches; solving and repairing technical errors on smart phones, iPads, Tablets, laptops without calling for help from technical staff.	X quick and accurate touches; solving and repairing technical errors on smart phones, iPads, Tablets, laptops without calling for help from technical staff.	X quick and accurate touches; solving and repairing technical errors on smart phones, iPads, Tablets, laptops without calling for help from technical staff.	X quick and accurate touches; solving and repairing technical errors on smart phones, iPads, Tablets, laptops without calling for help from technical staff.	X quick and accurate touches; solving and repairing technical errors on smart phones, iPads, Tablets, laptops without calling for help from technical staff.
Section 3: Purpose of using mobile devices											
8	To use mobile application for learning/teaching English.	X accessing ELSA software on smart phones	X recording ELSA software's pronunciation by smart phones	X Accessing Spotlight English application to teach listening	X For playing educational games	X Accessing Phrasal Verbs Cards application to refer English verb phrases	X Accessing Phrasal Verbs Cards application to learn English verb phrases follow teachers'	X accessing Duolingo application	X Download English music	X Accessing Practice English Grammar Software on smart phones.	

							request				
9	To use mobile devices to complete class work and assignment.	X for looking up vocabulary	X for looking up vocabulary	X For looking up vocabulary	X For looking up vocabulary	X for looking up vocabulary	X for looking up vocabulary	X looking up vocabulary	X Doing exercises on laptops and smart phones	X for looking up vocabulary	X for looking up vocabulary
10	To post a comment a blog, extra exercises and video clips, audio on a mobile device or respond a post.	X Showing extra exercises for students to practice pronunciation on laptop	X commenting Facebook on smart phones, iPads, Tablets, laptops	X Accessing grammar exercises	X Commenting zalo, on smart phones, iPads, Tablets, laptops	X Signing in email	X commenting face book, zalo on smart phones, iPads, Tablets, laptops	X accessing Duolingo application	X commenting face book on smart phones	X accessing Google website to surf teaching grammar text	X commenting and discussing about grammar point that day on zalo, smart phones, iPads, Tablets, laptops
11	To access learning/teaching English forum.					X uploading preview materials becoming unit on forum	X Replying teacher's post on forum smart phones, iPads, Tablets, laptops	X posting some English paragraphs English on forum	X commenting English forum smart phones, iPads, Tablets, laptops		
12	To use a mobile device for watching video clips for teaching/learning English.	X Showing video clip of pronunciation on laptop		X Playing video clip about English lecture on laptop		X Playing video clip about English lecture on laptop		X Playing video clip about English lecture on laptop		X Playing video clip about English lecture on laptop	
13	To use a mobile device to see films for learning and teaching English skills.			X Showing video clip	X Taking notes on smart phones and iPads	X Showing movie related to English lesson on laptop	X Taking notes on smart phones, iPads, Tablets, laptops	X Showing clips about reading learning cues on laptop	X Taking notes on smart phones, iPads, Tablets, laptops	X Showing two clips of grammar teaching on laptop	X Taking notes and taking photos by smart phones, iPads, Tablets, laptops
14	To use mobile			X							

	devices for teaching/learning and practicing listening.			Playing audio to teach listening on laptop							
15	To use mobile devices for teaching/learning English speaking.	X Playing pronunciation track on laptop		X Playing pronunciation track on laptop							
16	To use mobile devices for teaching/learning English reading.							X Playing reading comprehension lesson on laptop	X translating reading comprehension paragraphs into Vietnamese on smart phones and laptops		
17	To use mobile devices for teaching/learning and practicing English writing.	X Showing Power Point about pronunciation lesson on laptop				X Showing PowerPoint about writing lesson on laptop	X Surfing writing samples and writing on smart phones, IPads, Tablets, laptops				
18	To use mobile devices for teaching/learning English grammar.							X Showing PowerPoint about reading lesson on laptop	X taking notes about reading contents on smart phones, IPads, Tablets, laptops	X Showing PowerPoint about grammar lesson on laptop	X Surfing grammar point online on smart phones, IPads, Tablets, laptops
19	To exchange ideas, lessons and exercises	X Sending pronunciation	X Exchanging exercises	X Discussion listening	X Exchange listening	X Requesting students to	X Exchange writing	X Requesting reading	X Exchanging reading	X Sending grammar	X Discussing grammar

	with teachers/students on mobile devices.	audio via class email on smart phones	through smart phones, iPads, Tablets, laptops	assignment through laptop	exercises through smart phones, Tablets	prepare writing assignment through forum.	exercises through smart phones, iPads, Tablets, laptops	assignment via email	exercises through smart phones, iPads, laptops	homework on zalo group	exercises through smart phones, iPads, Tablets, laptops
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APPENDIX 7
RESEARCH CONSENT

Research Title: EFL teachers' and students' readiness for M-learning: A mixed methods study at a university in Vietnam

Purpose of the Study: The purpose of this study is to investigate the perceptions and attitudes of EFL teachers and students for using mobile devices to support learning English. It also examines how EFL teachers and students are ready to accept M-learning.

Subject inclusion: EFL teachers and students at a university in Vietnam.

Study Procedures: EFL teachers and students will be asked to fill out a questionnaire and participate in a 15-20 minute interview that will focus on their current use and perception of using mobile devices for learning English. The interview will be recorded for data analysis purpose. Some EFL classes will be observed when the English lessons with mobile devices are used.

Benefits: subjects will not receive any monetary benefits from this study.

Risks: This study does not present any risks for participants.

The participants may choose not to join or to withdraw from the study at any time without penalty or loss of any benefits to which they might otherwise be entitled.

Privacy: Results of a study may be published, but no names or identifying information will be included in the publication. Subject identify will remain confidential unless disclosure is required by law.

Signature: The survey has been conducted on me, one of participants by questionnaire and interview which have been answered. I may direct additional questions regarding study specifications towards the investigation. If I have questions about subjects' right or other concerns, I can contact Vo Thuy Linh, a PhD student at Hue University of Foreign Languages. I agree to participate in the study described above and acknowledge the investigator's obligation to provide me with a signed copy of this consent form.

Signature of participant

Date:

APPENDIX 8: EFL TEACHERS' QUESTIONNAIRE SPSS OUTPUT

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Statement 1	69	1.00	5.00	3.8551	.87909
Statement 2	69	1.00	5.00	3.9420	.96838
Statement 3	69	1.00	5.00	3.8406	.96441
Statement 4	69	1.00	5.00	3.9130	1.02526
Statement 5	69	1.00	5.00	4.0435	.83022
Statement 6	69	1.00	5.00	4.1159	.93205
Statement 7	69	1.00	5.00	4.0725	.92861
Statement 8	69	1.00	5.00	3.8406	.93342
Statement 9	69	1.00	5.00	3.8696	.88970
Statement 10	69	1.00	5.00	3.8841	.77718
Statement 11	69	1.00	5.00	4.2174	.74497
Statement 12	69	1.00	5.00	4.0145	.69648
Statement 13	69	1.00	5.00	3.8551	1.01858
Statement 14	69	1.00	5.00	3.8551	.95910
Statement 15	69	1.00	5.00	4.2464	.65092
Statement 16	69	1.00	5.00	4.1304	.63969
Statement 17	69	1.00	5.00	4.0725	.75379
Statement 18	69	1.00	5.00	3.5928	1.15839
Statement 19	69	1.00	3.00	3.8174	.70439
Statement 20	69	1.00	5.00	3.7919	.75039
Statement 21	69	1.00	5.00	3.6364	.67314
Statement 22	69	1.00	5.00	3.8574	.78346
Statement 23	69	1.00	5.00	3.7694	.74010
Statement 24	69	1.00	5.00	4.1078	.70348
Statement 25	69	1.00	5.00	3.8539	.74669
Statement 26	69	1.00	5.00	3.2804	.85600
Statement 27	69	1.00	5.00	3.5580	.76474
Statement 28	69	1.00	5.00	3.6035	.77526
Statement 29	69	1.00	5.00	3.8890	.82196
Statement 30	69	1.00	5.00	3.7465	.75605
Statement 31	69	1.00	5.00	4.0084	.67028
Statement 32	69	1.00	5.00	3.4852	1.10451
Statement 33	69	1.00	5.00	3.7210	.76641
Statement 34	69	1.00	5.00	3.7190	.76474
Statement 35	69	1.00	5.00	3.7312	1.26321
Statement 36	69	1.00	5.00	3.5921	1.23345
Statement 37	69	1.00	5.00	3.4731	1.29056
Statement 38	69	1.00	5.00	3.4645	1.30467
Statement 39	69	1.00	5.00	3.6922	1.19014
Statement 40	69	1.00	5.00	3.8515	1.10367
Statement 41	69	1.00	5.00	2.3017	1.28475
Statement 42	69	1.00	5.00	2.3624	1.18298
Statement 43	69	1.00	5.00	2.3134	1.22361

Statement 44	69	1.00	5.00	2.0715	1.09031
Statement 45	69	1.00	5.00	3.8521	1.06398
Statement 46	69	1.00	5.00	3.8221	1.04487
Statement 47	69	1.00	5.00	3.6935	1.19230
Statement 48	69	1.00	5.00	3.7932	1.15153
Statement 49	69	1.00	5.00	4.0143	0.98023
Statement 50	69	1.00	5.00	3.7246	1.06009
Statement 51	69	1.00	5.00	3.7528	1.18331
Statement 52	69	1.00	5.00	3.7329	1.11276
Statement 53	69	1.00	5.00	3.8631	1.03542
Statement 54	69	1.00	5.00	3.6239	1.31225
Statement 55	69	1.00	5.00	3.5219	1.36118
Statement 56	69	1.00	5.00	3.6828	1.28322
Statement 57	69	1.00	5.00	3.7326	1.15398
Statement 58	69	1.00	5.00	3.6049	1.33247
Statement 59	69	1.00	5.00	3.7521	1.26421
Valid N (listwise)	69			3.698758	0.980186

APPENDIX 9: EFL STUDENTS'QUESTIONNARE SPSS OUTPUT**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Statement 1	300	1.00	5.00	3.7092	0.90231
Statement 2	300	1.00	5.00	3.7602	0.93289
Statement 3	300	1.00	5.00	3.7428	0.96337
Statement 4	300	1.00	5.00	3.8238	0.89420
Statement 5	300	1.00	5.00	3.8704	0.86032
Statement 6	300	1.00	5.00	4.0248	0.75056
Statement 7	300	1.00	5.00	4.0267	0.83467
Statement 8	300	1.00	5.00	3.8139	0.84349
Statement 9	300	1.00	5.00	3.8098	0.89076
Statement 10	300	1.00	5.00	3.92446	0.79204
Statement 11	300	1.00	5.00	4.15197	0.70098
Statement 12	300	1.00	5.00	4.04207	0.69397
Statement 13	300	1.00	5.00	3.8134	0.86367
Statement 14	300	1.00	5.00	3.8036	0.85289
Statement 15	300	1.00	5.00	4.0042	0.75453
Statement 16	300	1.00	5.00	4.0434	0.81098
Statement 17	300	1.00	5.00	3.8705	0.85005
Statement 18	300	1.00	5.00	3.9604	0.75067
Statement 19	300	1.00	5.00	4.0079	0.79065
Statement 20	300	1.00	5.00	4.0921	0.78072
Statement 21	300	1.00	5.00	4.0132	0.85432
Statement 22	300	1.00	5.00	4.1248	0.74122
Statement 23	300	1.00	5.00	4.1010	0.74019
Statement 24	300	1.00	5.00	4.1812	0.72390
Statement 25	300	1.00	5.00	3.9900	0.81490
Statement 26	300	1.00	5.00	4.04	0.81309
Statement 27	300	1.00	5.00	3.8911	0.86112
Statement 28	300	1.00	5.00	3.9509	0.78231
Statement 29	300	1.00	5.00	3.9321	0.81439
Statement 30	300	1.00	5.00	3.8532	0.82299
Statement 31	300	1.00	5.00	4.0143	0.82289
Statement 32	300	1.00	5.00	3.5402	1.04219
Statement 33	300	1.00	5.00	3.7721	0.87276
Statement 34	300	1.00	5.00	3.8332	0.86398
Statement 35	300	1.00	5.00	3.9623	0.78371
Statement 36	300	1.00	5.00	3.8621	0.80397
Statement 37	300	1.00	5.00	3.9222	0.75318
Statement 38	300	1.00	5.00	3.8809	0.78481
Statement 39	300	1.00	5.00	3.9132	0.81499
Statement 40	300	1.00	5.00	3.9806	0.81321
Statement 41	300	1.00	5.00	2.5143	1.30120
Statement 42	300	1.00	5.00	2.6221	1.25238
Statement 43	300	1.00	5.00	2.4445	1.26231

Statement 44	300	1.00	5.00	2.4240	1.19219
Statement 45	300	1.00	5.00	3.8614	0.81029
Statement 46	300	1.00	5.00	3.6832	0.91005
Statement 47	300	1.00	5.00	3.8509	0.86449
Statement 48	300	1.00	5.00	3.8700	0.85319
Statement 49	300	1.00	5.00	3.9230	0.83199
Statement 50	300	1.00	5.00	3.9027	0.80379
Statement 51	300	1.00	5.00	3.9712	0.79258
Statement 52	300	1.00	5.00	3.7727	0.89147
Statement 53	300	1.00	5.00	3.9136	0.81229
Statement 54	300	1.00	5.00	3.9121	0.81276
Statement 55	300	1.00	5.00	3.8432	0.88279
Statement 56	300	1.00	5.00	3.9143	0.81318
Statement 57	300	1.00	5.00	3.8945	0.85289
Statement 58	300	1.00	5.00	3.8520	0.85459
Statement 59	300	1.00	5.00	3.9606	0.83342
Valid N (listwise)	300			3.816686	0.855351

**APPENDIX 10: EFL TEACHERS' QUESTIONNAIRE ONE SAMPLE T-TEST
OUTPUT**

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Statement 1	69	3.8551	.87909	.10583
Statement 2	69	3.9420	.96838	.11658
Statement 3	69	3.8406	.96441	.11610
Statement 4	69	3.9130	1.02526	.12343
Statement 5	69	4.0435	.83022	.09995
Statement 6	69	4.1159	.93205	.11221
Statement 7	69	4.0725	.92861	.11179
Statement 8	69	3.8406	.93342	.11237
Statement 9	69	3.8696	.88970	.10711
Statement 10	69	3.8841	.77718	.09356
Statement 11	69	4.2174	.74497	.08968
Statement 12	69	4.0145	.69648	.08385
Statement 13	69	3.8551	1.01858	.12262
Statement 14	69	3.8551	.95910	.11546
Statement 15	69	4.2464	.65092	.07836
Statement 16	69	4.1304	.63969	.07701
Statement 17	69	4.0725	.75379	.09075
Statement 18	69	3.4928	1.15839	.13945
Statement 19	69	2.2174	.70439	.08480
Statement 20	69	4.2319	.75039	.09034
Statement 21	69	4.2464	.67314	.08104
Statement 22	69	4.2174	.78346	.09432
Statement 23	69	4.1594	.74010	.08910
Statement 24	69	4.3478	.70348	.08469
Statement 25	69	4.1739	.74669	.08989
Statement 26	69	4.1304	.85600	.10305
Statement 27	69	4.0580	.76474	.09206
Statement 28	69	4.0435	.77526	.09333
Statement 29	69	4.0290	.82196	.09895
Statement 30	69	3.9565	.75605	.09102
Statement 31	69	4.1884	.67028	.08069
Statement 32	69	3.5652	1.10451	.13297
Statement 33	69	3.9710	.76641	.09226
Statement 34	69	3.9420	.76474	.09206
Statement 35	69	4.0870	.74240	.08937
Statement 36	69	4.0000	.70711	.08513
Statement 37	69	4.0580	.61558	.07411
Statement 38	69	3.9565	.71609	.08621
Statement 39	69	4.0435	.67377	.08111
Statement 40	69	4.0580	.88922	.10705
Statement 41	69	2.8841	1.31212	.15796
Statement 42	69	2.7101	1.28454	.15464

Statement 43	69	3.0145	1.20651	.14525
Statement 44	69	3.1159	1.21916	.14677
Statement 45	69	4.0145	.75718	.09115
Statement 46	69	3.7826	.88898	.10702
Statement 47	69	4.0290	.70650	.08505
Statement 48	69	4.0290	.78536	.09455
Statement 49	69	4.1014	.80704	.09716
Statement 50	69	4.0290	.68537	.08251
Statement 51	69	4.0580	.68350	.08228
Statement 52	69	3.7826	.98324	.11837
Statement 53	69	4.0725	.69280	.08340
Statement 54	69	4.0290	.72702	.08752
Statement 55	69	3.9565	.86492	.10412
Statement 56	69	4.0580	.74526	.08972
Statement 57	69	4.0145	.75718	.09115
Statement 58	69	4.0580	.70469	.08483
Statement 59	69	4.0725	.82816	.09970

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Statement 1	8.080	68	.000	.85507	.6439	1.0663
Statement 2	8.081	68	.000	.94203	.7094	1.1747
Statement 3	7.240	68	.000	.84058	.6089	1.0723
Statement 4	7.397	68	.000	.91304	.6667	1.1593
Statement 5	10.440	68	.000	1.04348	.8440	1.2429
Statement 6	9.946	68	.000	1.11594	.8920	1.3398
Statement 7	9.593	68	.000	1.07246	.8494	1.2955
Statement 8	7.480	68	.000	.84058	.6163	1.0648
Statement 9	8.119	68	.000	.86957	.6558	1.0833
Statement 10	9.449	68	.000	.88406	.6974	1.0708
Statement 11	13.574	68	.000	1.21739	1.0384	1.3964
Statement 12	12.099	68	.000	1.01449	.8472	1.1818
Statement 13	6.973	68	.000	.85507	.6104	1.0998
Statement 14	7.406	68	.000	.85507	.6247	1.0855
Statement 15	15.905	68	.000	1.24638	1.0900	1.4027
Statement 16	14.679	68	.000	1.13043	.9768	1.2841
Statement 17	11.818	68	.000	1.07246	.8914	1.2535
Statement 18	3.533	68	.001	.49275	.2145	.7710
Statement 19	-9.229	68	.000	-.78261	-.9518	-.6134
Statement 20	13.637	68	.000	1.23188	1.0516	1.4121
Statement 21	15.381	68	.000	1.24638	1.0847	1.4081
Statement 22	12.907	68	.000	1.21739	1.0292	1.4056
Statement 23	13.013	68	.000	1.15942	.9816	1.3372
Statement 24	15.915	68	.000	1.34783	1.1788	1.5168
Statement 25	13.059	68	.000	1.17391	.9945	1.3533
Statement 26	10.970	68	.000	1.13043	.9248	1.3361
Statement 27	11.492	68	.000	1.05797	.8743	1.2417
Statement 28	11.181	68	.000	1.04348	.8572	1.2297
Statement 29	10.399	68	.000	1.02899	.8315	1.2264
Statement 30	10.509	68	.000	.95652	.7749	1.1381
Statement 31	14.728	68	.000	1.18841	1.0274	1.3494
Statement 32	4.251	68	.000	.56522	.2999	.8306
Statement 33	10.524	68	.000	.97101	.7869	1.1551
Statement 34	10.232	68	.000	.94203	.7583	1.1257
Statement 35	12.162	68	.000	1.08696	.9086	1.2653
Statement 36	11.747	68	.000	1.00000	.8301	1.1699
Statement 37	14.276	68	.000	1.05797	.9101	1.2059
Statement 38	11.096	68	.000	.95652	.7845	1.1285
Statement 39	12.865	68	.000	1.04348	.8816	1.2053
Statement 40	9.883	68	.000	1.05797	.8444	1.2716

Statement 41	-.734	68	.465	-.11594	-.4311	.1993
Statement 42	-1.874	68	.065	-.28986	-.5984	.0187
Statement 43	.100	68	.921	.01449	-.2753	.3043
Statement 44	.790	68	.432	.11594	-.1769	.4088
Statement 45	11.130	68	.000	1.01449	.8326	1.1964
Statement 46	7.313	68	.000	.78261	.5691	.9962
Statement 47	12.098	68	.000	1.02899	.8593	1.1987
Statement 48	10.883	68	.000	1.02899	.8403	1.2177
Statement 49	11.337	68	.000	1.10145	.9076	1.2953
Statement 50	12.471	68	.000	1.02899	.8643	1.1936
Statement 51	12.858	68	.000	1.05797	.8938	1.2222
Statement 52	6.612	68	.000	.78261	.5464	1.0188
Statement 53	12.859	68	.000	1.07246	.9060	1.2389
Statement 54	11.757	68	.000	1.02899	.8543	1.2036
Statement 55	9.186	68	.000	.95652	.7487	1.1643
Statement 56	11.792	68	.000	1.05797	.8789	1.2370
Statement 57	11.130	68	.000	1.01449	.8326	1.1964
Statement 58	12.471	68	.000	1.05797	.8887	1.2273
Statement 59	10.757	68	.000	1.07246	.8735	1.2714

**APPENDIX 11: EFL STUDENTS' QUESTIONNAIRE ONE SAMPLE T-TEST
OUTPUT**

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Statement 1	300	3.7067	.90370	.05218
Statement 2	300	3.7667	.93549	.05401
Statement 3	300	3.7433	.95595	.05519
Statement 4	300	3.8267	.88651	.05118
Statement 5	300	3.8700	.86926	.05019
Statement 6	300	4.0233	.75588	.04364
Statement 7	300	4.0200	.83382	.04814
Statement 8	300	3.8133	.84511	.04879
Statement 9	300	3.8067	.89365	.05160
Statement 10	300	3.9200	.79732	.04603
Statement 11	300	4.1533	.70104	.04047
Statement 12	300	4.0433	.69982	.04040
Statement 13	300	3.8167	.86345	.04985
Statement 14	300	3.8000	.85387	.04930
Statement 15	300	4.0067	.75400	.04353
Statement 16	300	4.0433	.80641	.04656
Statement 17	300	3.8767	.85080	.04912
Statement 18	300	3.1000	1.48459	.08571
Statement 19	300	4.0033	.79083	.04566
Statement 20	300	4.0967	.78488	.04532
Statement 21	300	4.0167	.85175	.04918
Statement 22	300	4.1267	.74777	.04317
Statement 23	300	4.1033	.74015	.04273
Statement 24	300	4.1833	.71514	.04129
Statement 25	300	3.9933	.81373	.04698
Statement 26	300	4.0433	.81466	.04703
Statement 27	300	3.8900	.86045	.04968
Statement 28	300	3.9533	.77879	.04496
Statement 29	300	3.9300	.81279	.04693
Statement 30	300	3.8533	.82912	.04787
Statement 31	300	4.0100	.81575	.04710
Statement 32	300	3.5400	1.04180	.06015
Statement 33	300	3.7767	.87331	.05042
Statement 34	300	3.8367	.85582	.04941
Statement 35	300	3.9600	.78344	.04523
Statement 36	300	3.8667	.80273	.04635
Statement 37	300	3.9200	.74976	.04329
Statement 38	300	3.8867	.77621	.04481
Statement 39	300	3.9100	.81082	.04681
Statement 40	300	3.9800	.80525	.04649
Statement 41	300	3.1933	1.28639	.07427
Statement 42	300	3.3733	1.20782	.06973

Statement 43	300	3.3867	1.21191	.06997
Statement 44	300	3.3033	1.36536	.07883
Statement 45	300	3.8667	.80688	.04659
Statement 46	300	3.6867	.90806	.05243
Statement 47	300	3.8500	.86215	.04978
Statement 48	300	3.8733	.84834	.04898
Statement 49	300	3.9200	.83822	.04839
Statement 50	300	3.9067	.80006	.04619
Statement 51	300	3.9733	.79250	.04575
Statement 52	300	3.7700	.89803	.05185
Statement 53	300	3.9133	.80912	.04671
Statement 54	300	3.9100	.80668	.04657
Statement 55	300	3.8433	.88017	.05082
Statement 56	300	3.9133	.81324	.04695
Statement 57	300	3.8967	.84560	.04882
Statement 58	300	3.8567	.84765	.04894
Statement 59	300	3.9667	.82937	.04788

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Statement 1	13.544	299	.000	.70667	.6040	.8093
Statement 2	14.195	299	.000	.76667	.6604	.8730
Statement 3	13.468	299	.000	.74333	.6347	.8519
Statement 4	16.151	299	.000	.82667	.7259	.9274
Statement 5	17.335	299	.000	.87000	.7712	.9688
Statement 6	23.449	299	.000	1.02333	.9375	1.1092
Statement 7	21.188	299	.000	1.02000	.9253	1.1147
Statement 8	16.669	299	.000	.81333	.7173	.9094
Statement 9	15.635	299	.000	.80667	.7051	.9082
Statement 10	19.986	299	.000	.92000	.8294	1.0106
Statement 11	28.495	299	.000	1.15333	1.0737	1.2330
Statement 12	25.822	299	.000	1.04333	.9638	1.1228
Statement 13	16.382	299	.000	.81667	.7186	.9148
Statement 14	16.228	299	.000	.80000	.7030	.8970
Statement 15	23.125	299	.000	1.00667	.9210	1.0923
Statement 16	22.409	299	.000	1.04333	.9517	1.1350
Statement 17	17.847	299	.000	.87667	.7800	.9733
Statement 18	1.167	299	.244	.10000	-.0687	.2687
Statement 19	21.975	299	.000	1.00333	.9135	1.0932
Statement 20	24.201	299	.000	1.09667	1.0075	1.1858
Statement 21	20.674	299	.000	1.01667	.9199	1.1134
Statement 22	26.097	299	.000	1.12667	1.0417	1.2116

Statement 23	25.820	299	.000	1.10333	1.0192	1.1874
Statement 24	28.660	299	.000	1.18333	1.1021	1.2646
Statement 25	21.143	299	.000	.99333	.9009	1.0858
Statement 26	22.182	299	.000	1.04333	.9508	1.1359
Statement 27	17.915	299	.000	.89000	.7922	.9878
Statement 28	21.202	299	.000	.95333	.8648	1.0418
Statement 29	19.818	299	.000	.93000	.8377	1.0223
Statement 30	17.826	299	.000	.85333	.7591	.9475
Statement 31	21.445	299	.000	1.01000	.9173	1.1027
Statement 32	8.978	299	.000	.54000	.4216	.6584
Statement 33	15.404	299	.000	.77667	.6774	.8759
Statement 34	16.933	299	.000	.83667	.7394	.9339
Statement 35	21.224	299	.000	.96000	.8710	1.0490
Statement 36	18.700	299	.000	.86667	.7755	.9579
Statement 37	21.253	299	.000	.92000	.8348	1.0052
Statement 38	19.785	299	.000	.88667	.7985	.9749
Statement 39	19.439	299	.000	.91000	.8179	1.0021
Statement 40	21.079	299	.000	.98000	.8885	1.0715
Statement 41	2.603	299	.010	.19333	.0472	.3395
Statement 42	5.354	299	.000	.37333	.2361	.5106
Statement 43	5.526	299	.000	.38667	.2490	.5244
Statement 44	3.848	299	.000	.30333	.1482	.4585
Statement 45	18.604	299	.000	.86667	.7750	.9583
Statement 46	13.098	299	.000	.68667	.5835	.7898
Statement 47	17.076	299	.000	.85000	.7520	.9480
Statement 48	17.831	299	.000	.87333	.7769	.9697
Statement 49	19.010	299	.000	.92000	.8248	1.0152
Statement 50	19.629	299	.000	.90667	.8158	.9976
Statement 51	21.273	299	.000	.97333	.8833	1.0634
Statement 52	14.851	299	.000	.77000	.6680	.8720
Statement 53	19.551	299	.000	.91333	.8214	1.0053
Statement 54	19.539	299	.000	.91000	.8183	1.0017
Statement 55	16.596	299	.000	.84333	.7433	.9433
Statement 56	19.452	299	.000	.91333	.8209	1.0057
Statement 57	18.367	299	.000	.89667	.8006	.9927
Statement 58	17.505	299	.000	.85667	.7604	.9530
Statement 59	20.188	299	.000	.96667	.8724	1.0609