Master's thesis

NTNU
Norwegian University of Science and Technology
Faculty of Humanities
Department of Language and Literature

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The Influence of Extramural English Input on the English Proficiency of Vietnamese Students

A quantitative study on the effects of extramural exposure to English input on the English proficiency of the Vietnamese undergraduate students

Master's thesis in Master of Philosophy in English Linguistics and Language Acquisition
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Abstract

The current study investigated the possible effects of out-of-school English exposure, the so-called Extramural English (EE), on Vietnamese undergraduate students' English proficiency. The main aim of the current study was to shed light on how exposure to EE input influences Vietnamese students' English proficiency. The study was conducted on 245 undergraduate students in a university in Vietnam. The study was carried out using the quantitative method. A questionnaire asking about the participants' educational background, English knowledge, EE, and motivation for learning English, and a Vocabulary Levels Test (VLT) to measure the participants' receptive vocabulary size (Webb et al., 2017) were included. The results of the study revealed that reading in English was the only predictor of the participants' English proficiency. Additionally, the participants of the current study did not have massive exposure to EE. Moreover, the study found a significant correlation between residential areas where the participants originally came from and their English proficiency. A significant difference between the rural participants and the urban participants at their VLT was found in the current study. Specifically, the urban participants had a better performance at most levels of the VLT than the rural participants. Parents' educational levels did not have a connection with the participants' English proficiency. Taken together, the study suggests that there is indeed a correlation between EE and the participants' English proficiency in Vietnam, but it is not as strong as compared to correlations found in previous research. The weak correlation between EE and the participants' English proficiency may be due to the lower volume of exposure to EE in the current study compared to previous studies and maybe also because of a late starting age for EE.

Keywords: EE, out-of-school English, English input, English exposure input, SLA, L2 vocabulary learning, L2 acquisition, English as an L2

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List of Tables and Figures

List of abbreviations

AD	Anno Domini
BC	Before Christ
CP	Critical Period
CPH	Critical Period Hypothesis
EE	Extramural English
EFL	English Foreign Language
FL	Foreign Language
FLA	First Language Acquisition
L2	Second Language
L1	First Language
SLA	Second Language Acquisition
SD	Standard Deviation
SES	Social Economic Status
VLT	Vocabulary Levels Test

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1 Introduction

English is currently the most widely used and studied second language (L2) on the planet (Altbach, 2007), which owns an official role or a special status in more than 75 nations (Braine, 2014), with approximately a fourth of the Earth's population being English learners (Education First, 2015). It is a fact that the number of English speakers who are non-native outnumbers native ones (Mauranen et al., 2010; Braine, 2014). For every one English native speaker, there are four to five non-native English speakers in the globe (Montgomery, 2013).

In Vietnam, there have been some changes in language learning after Renovation and open-door policies, which focus on economic reform and open doors to the foreign countries initiated in 1986. The fast growth of the foreign investment into Vietnam's economy after these policies were released resulted in an increase in the number of international businesses and trades as well as foreign tourists (Quoc Lap, 2005). Speaking English is considered a key to a better job opportunity not only in the tourism and hospitality industry but also in many other enterprises (Van Van, 2010). It is one of the reasons why the demand for learning English in Vietnam has massively risen throughout the country in the last few decades (Quoc Lap, 2005). In the past, English learning methods in Vietnam were mainly grammar-based (Van Van, 2010). That is, students were taught a set of grammatical rules systematically, and after mastering these rules, it was expected of them to transfer those into proficient language use. They were hardly equipped with listening and speaking lessons, leading to learners' understanding of written texts but lacking communicative competence (Van Van, 2010). Being aware of the drawbacks of knowing only grammatical rules, the government has changed policies and paid much more attention to communicative methods of learning English.

Vietnam is a developing country whose economic growth and global integration have developed relatively fast after Renovation (Boothroyd & Nam, 2000). The access to cutting-edge technologies, computers, and the Internet of Vietnamese has been improved significantly since then. Therefore, Vietnamese students are likely to be exposed to the English language input outside classroom settings. The English input that learners are exposed through out-of-school activities such as watching TV, playing digital games, using the Internet, and reading newspapers is called extramural English input (EE) (Sundqvist, 2009). In developed countries such as Norway, Sweden, and Belgium, the exposure to the EE input has been consistently found to greatly facilitate the process of learning English (Sundqvist, 2009; Sundqvist, 2011;

Sylvén & Sundqvist, 2012; Brevik et al., 2018; Coxhead & Bytheway, 2015; Jóhannsdóttir, 2018; Lindgren & Muñoz, 2013; De Wilde et al., 2020a; Busby, 2015; Busby, 2021; Nordnes, 2021). However, most studies have been carried out in developed countries where EE input is more prevalent than in developing countries. For instance, Sundqvist and her colleagues' studies have often taken place in Sweden, Norway, or European countries, where English learners have easy access to EE input out of the classroom. Since there is very little research conducted on this topic in Vietnam, this study aims at filling this gap and investigating whether this correlation between EE and learners' proficiency exists in Vietnam as an example of a country in the developing world.

The current study was carried out to answer three specific research questions: 1) How much EE exposure do Vietnamese students actually have? 2) Does extramural input have an impact on Vietnamese students' English proficiency? If it does, to what extent? 3) Do places where participants grow up have effects on students' English proficiency in Vietnam? In order to answer the three above research questions, a quantitative study was conducted on 245 undergraduate students in Vietnam. In the study, the participants completed a VLT, which was used as a proxy to measure the participants' language proficiency, and filled out a questionnaire asking about their educational background, English knowledge, extramural English, and motivation for learning English. The study begins by providing a review of relevant literature about the origin and advent of English in the world and in Vietnam, second language acquisition (SLA), and findings from previous studies about the relationship between EE and English proficiency. Next, the methodology in the study is presented specifically about the participants, the Vocabulary Levels Test (VLT), ethical considerations, and the questionnaire. After that, the results from the VLT and the questionnaire, and the analyses are presented in the study. The main findings of the study are discussed in relation to existing theories and findings from previous studies. Finally, a conclusion is drawn based on these findings.

2 Literature review

2.1 English in the world

'English is the global language' is said to have been seen in headlines of a lot of newspapers and magazines (Crystal, 2003, p. 1). In an integrated and globalized world, the number of people who have a command of English has increased exponentially (Lysandrou & Lysandrou, 2003). It results in that English is spoken by nearly 2 billion people on the planet (Braine, 2014; Montgomery, 2013). The number of people who know and use English will continue to increase at an unprecedented ratio (Lysandrou & Lysandrou, 2003). In the past, there have been several other lingua francas – French, Latin, but with the current situation, English is regarded as the world's lingua franca (Jenkins, 2007).

2.1.1 Its origin and advent as a global language

Why and how has English become the universal language spoken by many people like it does today, rather than other languages? Kachru (1992, p. 29) said that it is because there is "an element of historical luck" that made English occupy its current position. In addition, English did not reach this position suddenly, but it has gone through several stages (Seargeant & Swann, 2013). From 1600 to 1750, the milestone marked the first step of English spreading globally due to the prevalent spread of British colonialism and settlements to the world (Kachru, 1992). From 1750 to around 1900, many big events happened, causing the massive spread of English. First of all, the population size in the native English-speaking settlements increased fast in size (Kachru, 1992). Secondly, the United States, Australia, and some other British colonies began to take their independence, paving the way for English to be spoken in various places with its own pride in the new lands. Thirdly, learning English became a major goal for non-native English speakers to survive or look for employment opportunities (Kachru, 1992). More importantly, the Industrial Revolution started out in Britain, where English was spoken (Fennell, 2001). Therefore, having a command of English was the best way to access the latest knowledge about new technologies.

In modern times, the role and function of English have changed. They have been regarded as "a window on the world of science and technology," not the instrument of the British Empire to dominate colonies anymore (Kachru, 1992, p. 30). By the early 20th century, the United States, whose main language is English, had emerged as a political and economic superpower that strongly influenced the spread of English in every facet, especially through science,

technology, and culture (Fennell, 2001). The international pop-music industry focuses on English (Westphal & Jansen, 2021). Space science and computing technology adopt English as their main language (Seidlhofer, 2013). A lot of activities, conferences, organizations, and movements are carried out in English throughout the world. These activities reinforce the ample spread of English (Montgomery, 2013; Kaplan, 2001). The telecommunication revolution in which English has played the most important role in the international media, radio, TV, magazines, newspapers, and others also makes a significant contribution to the advent of English as a global language (Fennell, 2001).

All afore-mentioned reasons English has become a global language are said because of "the power of its people" (Crystal, 2003, p. 9). He also added that the status that English currently has is thanks to its opportunity to come "in the right place at the right time" (Crystal, 2003, p. 78). Eventually, both geographical-historical and socio-cultural factors have brought English into existence as the currently universal language (Crystal, 2003). However, whatever the reason for the global spread of English, it is undeniable that English now plays an important role in the contemporary world. Therefore, knowing English is seen as the best way to keep up with developments in science, technology, and popular culture (Busby, 2015).

The ample spread of English leads to the increasing demand for teaching and learning English in the world (Sun, 2013). In the late 1950s, Britain made a lot of efforts in teaching English as an L2 to students at school in the colonial countries. After 1960, there were a lot of changes. The prosperous economic growth and development of air travel, which facilitated international traffic, drew English teachers from other countries to teach English and international students to study in the UK (Crystal, 1997). In the UK, professional associations of teaching English as a foreign language (FL) were established, such as the English Teaching Information Centre (1961), the British Association of Applied Linguistics (1967), and so on. Meanwhile, the USA witnessed the same development, so the establishment of professional institutions and associations occurred. In 1966, Teaching English to Speakers of Other Languages (TESOL) was founded. As English teaching and learning continued to expand worldwide, it became more professionally specialized to meet the demand and need. Since then, English has become the officially used language of instruction in many universities in many countries and even used in places where it is not the official language (Crystal, 1997). English teaching is said to have become a 'massive business' (Kaplan, 2001, p. 5). A lot of organizations were established to foster this kind of business. Especially in the late 1970s, the British Council published the test

initially called Council's English Language Testing Service (ELTS), which later changed into IELTS being the acronym of the International English Language Tests. This kind of test put more emphasis on skills than grammar, and the candidates can also choose their preferred modules. It was officially put into use for the first time in 1980 in 40 different centers worldwide. IELTS is considered the rival of its American instrument – TOEFL (Test of English as a Foreign Language). The British Council already has offices in 140 countries worldwide, promoting cooperation in culture, education, and technical (IELTS, n.d). The number of candidates taking English examinations as a foreign language administered by the British Council and students taking English courses and other skills in English in British Council teaching centers has been steadily increasing over the years (Crystal, 1997).

International integration and globalization are the current trends in the world (Mrak, 2000). Trading and business activities are taking place on a macro level across the globe (Dewey, 2007). People from all corners of the globe cooperating to do their own business is something ubiquitous. These activities make a great contribution to the high demand for teaching and learning English in the world (Sun, 2013). In addition, teaching and learning English are in very high demand also because it is said that speaking English can enhance career prospects, provide access to updated and broader knowledge, promote cross-cultural communication as well as provide access to the popular culture (Oxford Royale Academy, 2014). With the development of information technology and the Internet, the learning of English has been found to be facilitated by online sources such as movies, newspapers, films, music, and so on (Sundqvist, 2009).

2.1.2 English as a global lingua franca

English now acts as a global lingua franca in various domains of life (Mauranen, 2003). According to Firth (1996, p. 240), a lingua franca is "a contact language between persons who share neither a common native tongue nor a common national culture." Since the advent of English as an international language, it has been prevalently used as a lingua franca in various activities in various fields around the world (Sun, 2013). Interestingly, most English interactions do not involve native English speakers (Crystal, 2012) because, as mentioned, the number of non-native English speakers outnumbers native ones. The establishment of many international organizations, forums, and bodies such as the United Nations (1945) and World Bank (1945) has been a factor facilitating the ample use of English (Crystal, 1997). English has

been chosen to be the main lingua franca when gatherings amongst these organization's members from multicultural, national, political, and regional groupings in a single meeting place happen (Genc & Bada, 2010). Currently, English is used as an official language or a working language in most major international meetings and gatherings, with ASEAN (Association of Southeast Asian Nations) as an example (Crystal, 2012).

In the academic sector, English as a lingua franca is widely used (Crystal, 2003). For the natural sciences, medicine, and large areas of engineering, English is the main vehicle of communication (Montgomery, 2013). This is evident from the number of scientific papers, journals, and periodicals published in English (Crystal, 2003). By the late 2000s, if researchers aimed to reach larger audiences in the international community, English was often used in the written output (Montgomery, 2013). Moreover, most databases, websites of major institutes, organizations, and data archives worldwide are now in English (Montgomery, 2013). Therefore, teaching English has become an integral part of many universities in the world because to keep up with the updated knowledge in science, students have to know English to be able to read journals.

English also has been found prevalently in communications, including the postal services, telephone systems, in the airwaves of radio, the Internet, and in the social media such as Facebook, Instagram, and platforms alike, television, movies, computer programs, and so forth around the world (Dovring, 1997; Crystal, 2012). The development of printing technology, mass production, and logistics has facilitated the progress of the press, in which English has been used as the main medium for four centuries (Crystal, 2012). Today, most newspapers published in the world are in English (Encyclopedia Britannica, 2008, p. 844ff., as cited in Crystal, 2012). It seems that English is currently omnipresent all over the world.

2.2 English in Vietnam

2.2.1 The linguistic history

According to Nguyen (1997, p. 2), Vietnamese is from "the Mon-Khmer stock and within a large linguistic family called the Austro-Asiatic family." It is a fact that Vietnam has a total of 54 ethnic groups whose languages are different from each other, and Vietnamese is the official language of a majority group called Kinh and the country. In terms of its spoken form, Vietnamese is a tonal language that uses tones such as level, rising, and so forth to form the

meaning of words, and it has many dialects divided into three main dialects: the North, the Central, and the Middle ones (Hoang, 1965). The North accent is chosen as the standard one to be used officially in most events in the country (Hoang, 1965).

The linguistic history in Vietnam has been dramatically influenced by its politics (Denham, 1992). Specifically, Vietnam has fought and been through many wars in its long history, and in each stage, it had been dominated by different enemies both politically and linguistically. From 111 BC to 938 AD, being under the Chinese feudal regime rule for nearly 1000 years, Vietnam was heavily affected by the Chinese language called "Hán." After 17 centuries, Vietnam created its own written language system, the so-called "Nôm" based on Chinese transcription (Karnow, 1983). In the seventeenth century, the Catholic missionaries and French colonialists found Roman scripts useful for their purposes. For Catholic missionaries, they needed to understand the local language to preach the Gospel and spread Christianity among the Vietnamese. For French colonialists, they thought transcription was good for the assimilation process, and it would make an easy transition for colonial inhabitants to learn French later (Nguyen, 1997). That is why the current Vietnamese writing system is in the Latin alphabet (Hoang, 1965). In modern Vietnamese, there are a lot of words borrowed from many languages in the world. However, the number of words borrowed from the language of Chinese outnumbers the number of words borrowed from other languages due to being under the Chinese regime for a long time in history (Nguyen, 1997).

From 1858 to 1945, French was the dominating FL in Vietnam because of French colonialism. French was taught in schools and universities and used prevalently in other domains of life (Dang, 1986). However, from 1954 to 1975, Vietnam was divided into two parts: the North and the South, in which Russia and China supported the former while the latter was backed by the USA (Ellis, 1994). In this period, Russian and Chinese were the dominating FLs in the North, while English and French were the principal FLs in the South. Vietnam has been unified since 1975, and Russian was still the dominant FL taught in the country until the Renovation initiated in 1986 (Ellis, 1994). Since the initiation of Renovation and open-door policies until the present, the country has witnessed the decrease of other FLs and the ascendancy of English (Denham, 1992). However, no one knows exactly when English was brought to Vietnam, only that English has been taught in Vietnam since the French regime (Van Van, 2010).

2.2.2 The similarities and differences between English and Vietnamese

For L2 learners, language similarities can facilitate the process of acquiring the target language both in terms of the acquisition of morphosyntax (Paradis, 2011; Blom et al., 2012) and in terms of vocabulary learning (Goriot et al., 2021; De Wilde et al., 2020b; Busby, 2015). According to Busby (2015, p. 18): "Words that are similar to those you already know in your own language are easier to learn in an L2 than words that are unfamiliar." Similarly, De Wilde et al. (2020b, 2021, p. 451) found that "cognates are easier to learn than non-cognates." Sometimes words can be similar across languages, especially when languages share a common family or loanwords from other languages (Busby, 2015). However, English and Vietnamese are from totally different language families. As mentioned, Vietnamese belongs to the Austro-Asiatic family, a large language family of Mainland Southeast Asia. On the other hand, English is a Germanic language that shares some common features with languages in the same family like Norwegian, German, and so on (Hoang, 1965). It means that the lexicon of these two languages is very different – they do not share a lot of similar or standard features.

The fact that English and Vietnamese belong to completely different language families means that they also differ significantly in morphosyntax and phonology, which may be an additional difficulty in L2 acquisition. English and Vietnamese have been observed to share some common features, such as the general word order of subject-verb-object (Tang, 2007). However, Vietnamese and English differ greatly regarding grammatical structures and morphology. English is an inflected language that uses bound morphemes to mark tense and number. In contrast, Vietnamese is an isolating language, which contains more free forms than bound forms, in that the grammar consists of word order and the use of function words, not bound morphemes like English (Tang, 2007). Vietnamese also differs from English in that it does not morphologically mark tense, aspect, or number. These characteristics can be seen in the following example:

"Sáng nay tôi ăn hai bát cơm và đi chợ."
"*Morning this I eat two bowl rice and go market*"
"This morning, I ate two bowls of rice and went to the market."

Each unit of the word in Vietnamese in the above example is an isolating syllable and has its own meaning. The verb "eat" could have the meaning of "eat, ate, and eating," but it does not show in the inflections as it does in English.

Moreover, nouns are mostly preceded by adjectives in English, whereas adjectives follow the nouns they modify in Vietnamese. In terms of phonology, as mentioned, Vietnamese is a tonal language using tones (level, rising, etc.) to distinguish the meanings of words, while this feature does not exist in English. This difference causes Vietnamese difficulties in learning English pronunciation. In addition, some specific sounds exist in English but not in Vietnamese (Hoang, 1965; Tang, 2007). For example, it is difficult for Vietnamese to differentiate between /i/ and /i:/ as in 'sit' and 'seat' or 'bit' and 'beat' because they are allophonic in the Vietnamese sound system but phonemic in English (Tang, 2007). In addition, the last consonant sounds are pronounced in English, but they are not pronounced in Vietnamese (Hoang, 1965; Tang, 2007). Take the verb 'tuyết' as an example; in Vietnamese, it has the last letter 't' which represents the phoneme /t/ in the English pronunciation, but it is silent in Vietnamese.

2.2.3 Teaching and learning English in Vietnam

2.2.3.1 The ascendancy of English

The Economic Reform and adoption of the market-oriented economy of Vietnam in 1986 led to the decision to expand diplomatic relations with other countries in the world (Quoc Lap, 2005). As a result, Vietnam attracted a lot of foreigners speaking English to the country and also capital investment from other Asian countries, Australia, the European Community, and other external investors, which made an essential contribution to the extensive use of English at the beginning of 1990s (Quoc Lap, 2005). In addition, in this period, Vietnam joined a lot of international organizations such as the Association of Southeast Asian Nations (ASEAN), World Trade Organization (WTO), Asia Pacific Economic Cooperation (APEC), and many other organizations in which English has been required as a means of communication (Tollefson, 2002). As a result, the demand for a skilled labor force speaking English has seen a significant increase. Consequently, English has become the first-choice FL in the whole country because people consider English a 'passport' to open many doors and get better job opportunities (Van Van, 2010). As Quoc Lap (2005) pointed out, there have been three predominant manifestations that make English officially acknowledged throughout the country. First, the number of students enrolled in English language teaching at colleges and universities since

1993 has increased many times compared to previous years. Second, English textbooks and teaching have been introduced in secondary schools as a part of the curriculum. Third, since 1993 learning FLs, especially English, has been significantly increasing among students and teaching staff irrespective of their own major.

According to the latest decision of the Vietnamese Ministry of Education and Training (MOET, 2010), English as a compulsory subject is taught from grades 3 to 12 in the general education system. Moreover, in order to graduate from university, students have to pass English exams and get a certain level of proficiency. Additionally, English is a prerequisite for those who undertake postgraduate study (Son, 2018). English has been made obligatory for people in many sectors. For example, governmental officials are required to learn English according to a prime-ministerial decree issued in 1995 (Son, 2018). To be granted scholarships to study abroad, English is one of the requirements needed to be met (Son, 2018).

The ascendancy of English after the Renovation has led to the increasing demand for English proficiency tests. There are many types of English proficiency tests widely accepted in the country. The International English Language Testing System (IELTS), the Test of English as a Foreign Language (TOEFL), and the Test of English for International Communication (TOEIC) are amongst the most widely taken in Vietnam and largely accepted by educational institutes and companies in Vietnam and also in the world.

2.2.3.2 The prevalent English teaching method

When it comes to teaching and learning methods, grammar-based approaches in teaching and learning English have been prevalent in Vietnam for a long time (Van Van, 2010). That is, grammatical rules have been introduced to students systematically until they master all these grammatical structures; it is hoped that they will transfer them into the language in use (Van Van, 2010). They barely have exposure to authentic English sources. Moreover, this method of learning just introduces vocabulary individually without context. In the textbooks introduced to students at school, the agenda covered for reading and writing accounts for almost two-thirds of the book's time duration (Quoc Lap, 2005). It is said that this is due to the examination-focused approach, which has been strongly influenced by the traditional and historical culture of learning in Vietnam (Quoc Lap, 2005). This method leads to the consequence that students

may know grammar and use written language well but not the other skills like speaking and listening (Van Van, 2010).

Some improvements have been made in English teaching and learning since those limitations have been acknowledged. New textbooks have been introduced, placing an equal emphasis on four skills, namely listening, speaking, reading, and writing (Quoc Lap, 2005). However, the new approach has not worked effectively due to many reasons. First, as mentioned above, the traditional method of learning has a big impact on students' learning styles and teachers' teaching methods, which mainly focus on language knowledge rather than language use and more on receptive knowledge than productive skills (Quoc Lap, 2005). Second, the scarcity of competent teachers who can deliver appropriate instruction to students makes the implementation of communicative language teaching methods more challenging (Son, 2018). It is common for teachers to use Vietnamese as an introduction medium in English classrooms (Anh, 2012). One more reason that can be considered to have a significant influence on teaching and learning English in Vietnam is the culture of a typical classroom where teachers are the center giving instruction and students are the instruction takers and receivers (Son, 2018).

There have been many changes, innovations, and improvements in pedagogy aiming at promoting communicative learning (Kam, 2002; Tollefson, 2002). However, there is still a big disparity and unequal opportunities when it comes to innovative teaching and learning English methods due to the mismanagement of educational budgets, the allocation of competent teachers, and the supply of English materials (Zhang et al., 2014).

2.2.3.3 The inequality in having access to English

Equality in education is a major concern of many countries in the world (Zhang et al., 2014). Making sure that all resources are allocated equally to every corner of the country seems challenging, if not impossible. Most governments have been making a lot of efforts to minimize educational inequality and guarantee the equal distribution of educational resources to every individual in the society (Zhang et al., 2014). Despite such efforts, inequality in education still exists prevalently due to many factors such as regional and urban-rural differences, social class, gender, ethnic equities, and so on (Chinh et al., 2014).

As mentioned above, having realized the shortcomings of the English grammar-based teaching method, the Vietnamese government introduced a new policy supporting the communicative competence approach (Zhang et al., 2014). However, there have been many challenges emerging during the implementation of this policy, and the inequality in opportunities to have access to English is the most prominent (Chinh et al., 2014). The English teaching and learning conditions in Vietnam see a big discrepancy between cities and countryside areas. That is, learners in countryside schools or low socio-economic areas tend to have fewer opportunities to have access to an FL than those in metropolitan areas (Nikolov & Djigunović, 2011). When it comes to English teaching and learning conditions in Vietnam, it is said that teachers and students in rural areas encounter a lot of physical insufficiencies, such as a scarcity of textbooks, Internet access, computers, and many other facilities (Chinh et al., 2014). In contrast, it seems like more resources are allocated in the urban areas facilitating learning English and maximizing the efficacy of that process (Chinh et al., 2014).

It is also important to note that the lack of awareness and insufficient awareness of school leaders about the significance of English make contributions to the inequality of access to English. Despite being upgraded as a compulsory subject in the school system English is still considered a supplementary one, so there has been little investment in facilities for English teaching and learning (Chinh et al., 2014). In addition, family background and conditions are also two factors contributing to educational inequality (Bing, 2014) and English language teaching in particular (Chinh et al., 2014). Specifically, students from urban areas are likely to experience a more favorable life than rural areas. The city students are most likely to be equipped with good facilities and technology (Chinh et al., 2014). They also usually have more opportunities to connect with native English speakers or foreigners than rural students do. In cities, there are many private English language centers where English classes are affordable for a considerable number of urban families, but this is not the case for countryside parents. Furthermore, students can benefit from tourist destinations in tourist cities because of many English-speaking tourists in these areas. Moreover, it is more likely that parents from cities have a more robust academic and professional background than those in rural areas. They are more likely to be involved in their children's English learning. Parents, who are well aware of the importance of English in their children's future, tend to invest more resources into the English education of their children. They can send their children to private international schools where English is used as a means of communication on a daily basis. The disparity can be easily

noticed between the public and private sectors (Nguyen, 2011). Foreign language programs at private schools are more advanced than in public ones (Nguyen, 2011).

Although many efforts have been made to provide an equal English learning environment for all students in Vietnam, there is still a big gap and inequality in the opportunities to have access to English in Vietnam (Chinh et al., 2014).

2.3 Second Language Acquisition (SLA)

2.3.1 Definition and concepts of SLA

SLA is a subfield of applied linguistics (Sundqvist, 2009). It is defined as "the learning of another language (second, third, fourth) after the acquisition of one's mother tongue is complete" (Ellis & Barkhuizen, 2005, p. 3). Moreover, the goal of SLA is to understand how a language system develops in learners' brains (VanPatten, 1996). According to the Monitor Theory of Krashen (1981, p. 1), two independent systems, which are 'subconscious language acquisition' and 'conscious language learning,' for developing L2 ability exist in adults. He claims that these two systems are interrelated in a definite way, but subconscious acquisition is far more important than conscious language learning (Krashen, 1981). He also elaborates that the SLA process, which requires meaningful interaction and natural communication in the target language, is very similar to children's First Language Acquisition (FLA) process. On the other hand, conscious language learning is said to be facilitated by the process of correcting errors and presenting explicit rules and formal instruction to learners (Krashen & Seliger, 1975, as cited in Krashen, 1981). However, these two terms, 'acquisition' and 'learning,' are often used interchangeably because it is difficult to have a clear-cut distinction between the two (Sundqvist, 2009). In addition, the puzzle of whether learning can turn into the acquisition or not is still controversial.

2.3.2 The role of input, output, and interaction in SLA

Input or exposure, which is the language experience of people, is seen as the main source for language acquisition. According to VanPatten & Benati (2015, p. 38): "Input refers to language that learners are exposed to, that is, language couched in communicative contexts that learners either hear or read." In FLA, infants have to rely almost completely on the speech they hear in the first years of life (Karmiloff & Karmiloff-Smith, 2002). It is also true in SLA that in order to successfully acquire a language, people have to be richly exposed to multiple different forms

and sources of input. It is a fact that no one can acquire a language without exposure to input in that language (Gass, 2017). Input is regarded as a central construct in all major theories and research paradigms within the domain of SLA (VanPatten & Benati, 2015). In addition, even in instructed SLA, the input is still the primary database on which language learners build linguistic systems.

Krashen (1980, 1985, 1992) proposes the Input Hypothesis, which has had a powerful influence on SLA studies. This hypothesis claims that when we acquire a language, 'Comprehensible Input' is the most crucial and essential component in language acquisition, but insufficient (Krashen, 1992). That is, learners have to be 'open' to the input that needs to contain grammatical forms at the 'i+1' level, which means the input or the aspect of the language that the acquirer has not yet acquired but is ready to acquire (Krashen, 1992). He also proposes that the right input level is attained automatically when partners succeed in making themselves understood in the communication context (Krashen, 1985, p. 2). Moreover, he argued that more comprehensible input results in more acquisition (Krashen, 1992, p. 411). However, the Comprehensible Input hypothesis has been criticized by other researchers that input alone is not enough for SLA (Doughty, 1991; Ellis, 1994; Long, 1983; White, 1987).

The Interaction Hypothesis proposed by Long (1981, 1983, 1989, 1996, as cited in Ellies, 1991) claims that Comprehensible Input facilitates SLA but is insufficient. Modifications to input make the acquisition possible because they help learners comprehend the input, notice new features, and compare what is noticed in their output. Interaction requiring learners to modify their initial output facilitates the process of integration. According to this hypothesis, modifications that learners receive when they communicate with caretakers, teachers, peers, native speakers, and others are said to facilitate the acquisition process (Snow & Ferguson, 1977, as cited in Krashen, 1981).

Meanwhile, the Output Hypothesis proposed by Swain (1985, 1993, 1995, 1998, 2005, as cited in Ellis, 1991) as a reaction to Krashen's Monitor Theory said that comprehensible input alone is not enough for SLA and that output does play an important role in SLA. Swain (1985, p. 129) claims that "if L2 learners cannot produce native-like speech, it is not because comprehensible input is limited but because the comprehensible output is limited". Swain (1985) studied and observed the importance of the output in the immersion programs in Canada and saw that children who had been immersed in this program for many years still could not produce native-

like English. In addition, she claims that sufficient opportunities for language use are what people lack, and producing linguistic discourse forces L2 learners to move from comprehension to syntactic use of language.

Ellis (1991) comments that both Krashen and Long emphasize the role of comprehensible input in SLA but in a different way. Specifically, Krashen (1980) claims that input only facilitates SLA when it becomes comprehensible to learners, and comprehension can be based on contextual and extralinguistic clues. On the other hand, Long (1983) argued that input only becomes comprehensible through the process of negotiating in interactive contexts. Hence, the interactive input is more important than non-interactive input (Ellis, 1991), and Swain (1985) put an emphasis on the important role of the comprehensible output in SLA.

2.3.3 The role of age in SLA

Whether age has a role in language learning and acquisition is one of the most studied and debated issues in the field of SLA. When it comes to language learning, it is a common assumption that infants and young children are superior learners compared to grownups (Kuhl, 2010). According to Penfield & Roberts (1959), after the first decade of life, namely nine years of age, the human brain has developed greatly and becomes progressively rigid, and achieving complete competence in a language is difficult. Thus, a period from birth to prior to puberty is regarded as an optimal or golden period for language acquisition. This idea is actually called the Critical Period Hypothesis (CPH) and was popularized by Lenneberg (1967). Lenneberg (1967) elaborates that children start to utter first words roughly around the age of two when they attain a certain level of physical maturation for language learning. In addition, brain plasticity at this age is very flexible (Lenneberg, 1967). As a result, languages can be easily, completely, and naturally acquired before puberty, and the capacity to learn a language will diminish after this period because of maturational constraints (Lenneberg, 1967; Felix, 1985). Although the CPH is directly addressed in FLA, age effects have caught the attention of a number of researchers in the field of SLA (Dahl & Vulchanova, 2014; VanPatten & Benati, 2015; Krashen, 1975). In SLA, it is said that if people do not receive enough linguistic input before the puberty period, mechanisms for language acquisition will stop being available, and learners would not be able to use these mechanisms to acquire languages (VanPatten & Benati, 2015). Therefore, according to this view, L2 learners will never acquire a language using the same mechanisms as in FLA and must apply a non-linguistic learning system to acquire

linguistic knowledge (VanPatten & Benati, 2015). This would mean that attaining the native-like competence of the L2 learners is impossible regardless of learning contexts.

There have been three main arguments about the CPH: 1) there is a critical period (CP), 2) there is not a CP, and 3) there are multiple CPs constraining different aspects of a language. Those who support the CPH believe that learners cannot completely achieve native-like competence if they start learning a language after the CP. One of the main arguments is that after the CP, learners do not have access to the Universal Grammar proposed by Noam Chomsky, which is a set of general grammatical principles common to all languages of the world (Cook, 1985). Instead, they have to use other cognitive-learning mechanisms to acquire language (VanPatten & Benati, 2015). A lot of research has been conducted on grammar and phonology and showed results supporting the CPH (Coppieters, 1987; Johnson & Newport, 1991; Flege et al., 1995). In terms of grammar, Coppieters (1987) carried out a study testing very advanced L2 French learners on syntactic, morphological, and semantic properties and comparing their results with native French learners'. The result of his study revealed that there were considerable differences between native French and non-native French speakers. He explained that these differences found in his research are involved in well-hidden aspects of a non-native speaker's competence in French. Interestingly, his study also showed that aspects of the first language (L1) system are most likely to be transferred to the L2, which causes the difference between the native and near-native competence. Another study conducted by Johnson & Newport (1989) also revealed that L2 learners' competence in English is substantially different from English native speakers. They said that the CP has a clear impact on the acquisition of many grammatical phenomena. In Johnson & Newport's (1989) study, they compared the English grammatical proficiency of native Korean or Chinese speakers who had arrived in America between the ages of 3 and 39 and had been living in the United States for approximately ten years at the time they were tested. The researchers used 12 basic English grammatical structures with an aurally presented grammaticality judgment task to test the participants. Their results revealed a clear and strong advantage for younger participants who arrived in the US at a very young age than older arrivals. Johnson & Newport's (1989) concluded that there are clear effects of maturational state on the acquisition of a target language.

Pronunciation or phonology has come to own a special position in the discussion about the CP for SLA (Bongaerts et al., 2000). It is considered the first aspect of language that is affected by a CP (Long, 1990). According to this view, those learners who start learning language late in

life cannot achieve a native-like pronunciation and accent because, at a certain age when their sensorimotor are generally developing, their ability to acquire the vowels and consonants of an L2 seems no longer exist (Flege, 1995). In fact, empirical studies have shown that the earlier is usually the better when it comes to pronunciation (Seliger et al., 1975; Oyama, 1976; Munro & Derwing, 1995; Flege et al., 1995). The study by Munro & Derwing (1995) showed that native Italian participants who started learning English after ten years of age pronounced the English sound /ə/ inaccurately. This might be because these subjects do not have the sensitivity of English native speakers have when they start to learn L2 late to distinguish this sound in English from all other sounds (Terbeek, 1977). Another study conducted by Flege et al. (1995) examines the degree of perceived foreign accent in English of native Italian participants who have started learning English at a different age. The participants in this study had been living in Canada for an average of 32 years, and they began learning English between the ages of 2 and 23. English native speakers used a continuous scale to rate English sentences for a degree of accent in English of the native Italian participants and native English ones in the comparison group. The results of their study showed that the later in life those native Italian participants started learning English, the more strongly foreign-accented their English sentences were judged to be. The results of their study imply that those who begin to learn L2 early can attain a native-like pronunciation and accent but that late L2 learners cannot.

However, many researchers argue that older learners can totally obtain a perfect proficiency in an L2 after puberty if they invest enough time in the learning (Bongaerts, Planken & Schils, 1995; Bongaerts, Mennen & Slik, 2000; Birdsong, 1992). Bongaerts and his colleagues conducted a number of studies to assess whether L2 learners can own the native-like pronunciation or not (Bongaerts, Planken & Schils, 1995; Bongaerts, Mennen & Slik, 2000). The participants in these studies have different mother tongues such as German, Spanish, French, English, and so on, and they tested Dutch as an L2. They came to a conclusion that there is no CP for the acquisition of a native-like pronunciation of L2 and also suggested that with very high motivation, intensive training in target language sounds together with ample exposure to the L2 might have enabled late L2 learners to achieve the native-like pronunciation. Regarding syntax and morphology, Birdsong (1992) conducted a study on 20 native speakers of English who were French near-native speakers and 20 native speakers of French. These English native speakers had been in France for three continuous years before being tested and had started learning French after puberty. His study revealed that 15 of his 20 native English subjects performed equally well as native speakers on a difficult grammaticality judgment task.

Therefore, he claimed that non-native speakers could ultimately achieve native-like competence.

Finally, there is a suggestion that there are multiple CPs constraining different aspects of language. In other words, the optimal periods for learning phonology, vocabulary, and grammar of the language differ (Kuhl, 2010). The optimal period for phonetic learning is said to occur before the end of the first year from birth, while the CP for syntactic learning blooms between 18 and 36 months of age. Regarding lexical development, the flourishing period is at around 18 months of age and does not have a precise 'closing' period as of other aspects of language because it is said that one person can learn vocabulary at any age (Kuhl, 2010).

In summary, whether the CPH exists and constraints language acquisition or not is still a hot and controversial topic among researchers in the field. However, it seems like there is stronger evidence supporting the idea that the earlier younger learners tend to outperform older ones, regardless of whether there is actually a clear CP, and, in particular, that younger learners are better at learning naturalistically from input.

2.3.4 Implicit learning and explicit learning in SLA

To explain the success of FLA and the variations in ultimate attainment levels of SLA, many factors such as brain maturation, Universal Grammar, and the CP have been discussed (Hulstijn, 2005). Distinctions between implicit learning and explicit learning have received much attention but the least consensus from researchers (Hulstijn, 2005; Ellis, 2008; Krashen, 1981; McLaughlin, 1978). FLA, especially the acquisition of L1 grammar, is often attributed to the implicit learning process, whereas the process of SLA relies on both explicit and implicit learning (Hulstijn, 2005).

When it comes to implicit learning, Ellis (2008, p. 3) said that "implicit learning is the acquisition of knowledge about the underlying structure of a complex stimulus environment by a process which takes place naturally, simply, and without conscious operations." It means that this type of learning arises incidentally from daily activities and the input emerging from the social context (De Wilde et al., 2020a). The linguistic knowledge gained is the by-product of other activities (De Wilde et al., 2020a). On the other hand, Hulstijn (2005, p. 131) said that "explicit learning is input processing with the conscious intention to find out whether the input

information contains regularities and if so, to work out the concepts and rules with which these regularities can be captured." It is a fact that the explicit input is often systematically structured by the teacher in a formal setting (usually in the classroom) at the pre-set time with a view to learning the language itself (De Wilde et al., 2020a). Hulstijn (2005) also argued that L2 learners have to explicitly extract linguistic input from contexts into rules and regularities so that they can apply these rules in communication.

On the other hand, Krashen's theory (1980) states that, like FLA, implicit processes also occur in SLA while the learner is receiving comprehensible L2 input. When people focus on communicating, people naturally acquire knowledge of the frequency of linguistic elements. However, when we read, we never consciously notice the frequency of words. When we listen, we never consciously count the phonetic sequences. Or, when we speak, we never consciously update the frequency of collocations in the utterances. The starting point for all language performance in SLA is the acquisition similar to FLA. This means that there is no important role for conscious learning in Krashen's view, which is a controversial question in SLA research (McLaughlin, 1978).

2.3.5 Individual difference variables in SLA

A lot of factors facilitate the success of acquiring an L2. Factors such as aptitude, gender, motivation, attention, learning styles, learning strategies, and so forth are called individual difference variables, which are prominent features of SLA. These factors have been studied extensively and attracted a lot of attention and thorough studies of researchers within the area of L2 research (Dörnyei, 2005; Dörnyei, 2006).

Regarding the role of gender in L2 acquisition, it is commonly and pervasively believed that female L2 learners have better performance than males (Van der Slik et al., 2015). Studies have found that females have an advantage over males at verbal memory tasks (Halpern, 2000; Kimura, 1999; Kramer et al., 1997, as cited in Ullman, 2005), which are dependent on declarative memory (Squire & Knowlton, 2000; Wagner et al., 1998, as cited in Ullman, 2005). This gender difference is said to be a result of women having higher levels of estrogen than men (Cutler Jr., 1997; K. Klein et al., 1994; Wilson et al., 1998, as cited in Ullman, 2005). Females who have an advantage at declarative memory are argued to show better performance

at lexical abilities in comparison with men (Ullman, 2005). In contrast, boys may perform better at aspects of grammar that depend on the procedural system (Ullman, 2005).

Moreover, Boyle (1987) also found that boys perform better than girls in listening skills. In addition, the differences in the brain structures between two genders have a certain impact on each gender. That is, females' brains are said to develop faster than males', so it is why girls mature earlier than boys (Dahlstrom, 2007; Sax, 2007, as cited in Sundqvist, 2009). Generally, girls will do better than boys in speaking and writing. It is because abilities to produce linguistic utterances and sentences require active access to both available verbal and verbal-related resources in the brain (Van der Slik et al., 2015). Boys are said to perform better in listening and grammar (Boyle, 1987). However, Sundqvist's study (2009) found that 9th-grade Swedish boys performed and scored better in English than their female peers on both Vocabulary Levels Test and Productive Levels tests. Sundqvist (2009) explained that these differences were presumably because those boys and girls had engaged in different types of input and extramural activities.

Interestingly, the gender differences can be linked to the motivation in the way that girls are more motivated to enroll in language courses than boys (Carr & Pauwels, 2006). Moreover, not only biological differences but also cultural differences exist between the two genders. A study by Carr & Pauwels (2006) in England, Scotland, Australia, and New Zealand saw a difference in the participation rate between boys and girls in foreign language learning. Specifically, girls always make up a more significant proportion in foreign language learning classrooms. One explanation was that boys were afraid of being picked on or different, not like a 'real boy' as in societal perceptions, so they are demotivated to learn languages. In addition, the perception of language learning is often attributed as a "feminine" thing. In a study in Gothenburg, Sweden, by Klapp Lekholm (2008), it has also been found that in English tests, the motivation of students helped to fully explain the gender differences. Moreover, female students achieve higher performance in learning because they have a higher motivation (Klapp Lekholm, 2008).

Many researchers have paid much attention to the motivational aspects of SLA (VanPatten & Benati, 2015). Motivation is the willingness, wishes, desire, and excitement to perform something. According to Cohen & Dörnyei (2002, p. 172), "motivation is often seen as the key learner variable because, without it, nothing much happens." McDonough (2007, p. 369) proposed four elements involving motivation, namely "the reasons why we want to learn, the

strength of our desire to learn, the kind of person we are, and the task and our estimation of what is required of us." It is true that in order to achieve advanced levels in any L2, learners have to spend years and invest a lot of energy and effort in that language, so highly motivated individuals would show persistence and patience in learning an L2 (Sundqvist, 2009). As Cohen & Dörnyei (2002) said, if learners do not desire to acquire the language, they cannot become successful L2 learners. Therefore, motivation is said to strongly correlate with successful SLA (VanPatten & Benati, 2015).

One more factor that is considered to affect SLA significantly is the aptitude for acquiring foreign languages. Aptitude is broadly defined as the cognitive abilities (language perception, encoding of sounds, working memory, grammatical sensitivity, and so forth) that language learners bring to the task of acquisition (VanPatten & Benati, 2015, p. 44). Researchers have different points of view about aptitude. For example, DeKeyser (2000) found a positive correlation between the scores of Hungarian L1 learners of English L2 in an aptitude test and on an acquisition test of various domains in English for only those participants who were older than 16 years old. On the other hand, Robinson's work showed that the role of aptitude and its interaction with certain situational tests are more important.

Learning styles and learning strategies are other factors that are likely to have an influence on SLA. Learning styles refer to "an individual's natural, habitual, and preferred way(s) of absorbing, processing, and retaining new information and skills" (Reid, 1995, p. viii, as cited in Dörnyei, 2005). According to Cohen (2014, p. 5):

> Language learning strategies include strategies for identifying the material that needs to be learned, distinguishing it from other material if need be, grouping it for easier learning (e.g., grouping vocabulary by category into nouns, verbs, adjectives, adverbs, and so forth), having repeated contact with the material (e.g., through classroom tasks or the completion of homework assignments), and formally committing the material to memory when it does not seem to be acquired naturally (whether through rote memory techniques such as repetition, the use of mnemonics, or some other memory technique).

Learning styles and learning strategies differ from abilities and aptitude because they are not genetic endowments that favorably facilitate and ease SLA. However, they belong to each individual's styles and preferences (Dörnyei, 2005), and the main difference between them is stability. That is, learning styles are more stable and consistent across the process of learning

while learning strategies are applied to a certain task and context to solve the problem (Snow et al., 1996).

In general, individual variables have been suggested to have a connection with the SLA (Dörnyei, 2005; Dekeyser, 2000; McDonough, 2007).

2.4 Extramural English input

2.4.1 Definition of Extramural English

The term Extramural English, coined by Sundqvist (2009, p. 1), means "English outside the walls." The walls implied here are the school walls, and this term is used to refer to the English input encountered outside of school. Extramural input here involves the absence of the deliberate intention for acquiring English. Since the mid-1990s, students' opportunities to have access to EE have been increasing dramatically with the widespread use of computers and the Internet (Modiano, 2005). Moreover, English is used widely and extensively in the media (Sundqvist, 2009). According to Education First, more than half (52%) of websites mostly visited on the Internet are in English (Education First, 2017). Thus, these sources potentially benefit SLA in the ways that they provide input to English acquisition and greatly facilitate the progress of mastering the proficiency of this language beyond the classroom (Sykes, 2018).

Regarding opportunities of access to EE, in Scandinavian countries such as Norway and Sweden, and Denmark, EE is said to be 'omnipresent' although English has no official status in these countries (Sundqvist, 2009; Busby, 2015; Busby, 2021; Jensen, 2017). The proportion of the young spending more than three hours on the Internet daily has rapidly increased just over ten years (Statens medieråd, 2017). In the meantime, a study carried out by the Norwegian media authority (Medietilsynet, 2016) showed that 96% of boys and 76% of girls at the ages 9-16 spend their free time playing digital games. The number of hours spent on movies is 25 hours, and on the Internet is 65-70 hours per week (Medietilsynet, 2016). These countries are internationally renowned for having a high level of English proficiency (Henry, 2014). As reported by the Swedish National Agency for Education (Skolverket, 2004), many Swedish students learn English by having exposure to activities outside school. There have been suggestions that this extramural exposure to English enables people in Scandinavian countries to become proficient in English rather than formal teaching approaches at school (Sundqvist, 2009; Busby, 2015; Busby, 2021; Jensen, 2017; Nordnes, 2021).

Vietnam is one of the countries having the fastest growing Internet in Southeast Asia (Cimigo, 2011), meaning that more and more people have had access to the Internet. Moreover, it is common for the young generation to have mobile phones connected to the Internet (Cimigo, 2011). However, no study has been undertaken to show whether English is the dominating language for Internet use or not (Son, 2018). Most imported TV programs and films in Vietnam are dubbed instead of being subtitled. When it comes to the term 'English outside of school,' it is often used to refer to learning English at private centers and/or with private tutors after a school day (Van Van, 2010; Son, 2018). This activity is becoming more and more popular in Vietnam because it is said that going to private English centers for English learning can give learners more opportunities to have exposure to the English environment (Nguyen, 2011).

2.4.2 Sources of Extramural English

Researchers seem to agree that vocabulary is at the core of SLA (Adolphs & Schmitt, 2004, p. 40; Bergström, 2001, p. 51; Meara, 1992, p. 2-4). Normally, an average 18-year-old English native speaker knows up to 42 thousand lemmas from 12 thousand word families (Brysbaert et al., 2016). Moreover, learners need to know 8,000-9,000 word-families to understand 98% of written text (Nations, 2006; Schmitt, Jiang, & Grabe, 2011) and 6,000-7,000 most frequent word-families to understand 98% of spoken input (Nations, 2006). When it comes to English spoken input in movies and TV shows, Webb & Rodgers (2009a) and Webb & Rodgers (2009b) showed that knowledge of 2,000 to 4,000 is needed for learners to understand 95% of spoken input, and 6,000 to 9,000 to understand 98% of spoken input. It is impossible for an L2 learner to learn these numbers of words in classroom settings (Webb & Nation, 2017; Cobb, 2007). Therefore, learners need to be equipped with informal sources from daily settings in order for them to fully acquire an L2 (De Wilde et al., 2020a).

There have been various studies on the relationship between EE and English proficiency within the domain of SLA, whose results have shown positive and significant correlations between the two variables. As mentioned, Sundqvist (2009) carried out a one-year study that focused on EE matters and looked into the impacts of out-of-class English on the oral proficiency and vocabulary of Swedish 9th-grade students. A questionnaire and two language diaries were used to measure EE. The language diaries covered seven EE activities: reading books, watching TV, reading newspapers/magazines, surfing the Internet, watching films, playing video games, listening to music, and an open category. The findings showed a significant and positive

correlation between EE with learners' oral proficiency and vocabulary. Three years later, Sylvén & Sundqvist (2012) conducted another study that considered gaming as EE learning. Their study investigated the correlation between English proficiency and the frequency of gaming, and the types of games that learners often play. The result revealed that those who frequently played games had a better performance in L2 English tests than moderate gamers and non-gamers. The results showed significant language gains from these extramural activities in this study.

Another study on the effects of out-of-class exposure to English language media on Flemish learners' vocabulary knowledge was conducted by Peters (2018). This study looked into the frequency of exposure to media outside school, the correlation between EE with learners' vocabulary knowledge, and other factors such as the length of instruction and gender impacts on the learners' vocabulary knowledge. Her work has shown that the EE input had a more significant effect on learners' vocabulary knowledge than the instruction length. De Wilde et al. (2020a) conducted a study to examine the level of learners' English proficiency through out-of-class exposure before they receive formal English instruction at school. Seven hundred and eighty Dutch participants aged 10-12 were tested on receptive vocabulary knowledge, listening, speaking, reading, and writing skills. The questionnaire was used to gather information about EE input and gaming. Their study found that gaming, using social media, and speaking were the most beneficial types of input for learners' English knowledge. More studies conducted on EE outside school also showed positive correlations between English proficiency and EE input (Brevik et al., 2018; Coxhead & Bytheway, 2015; Jóhannsdóttir, 2018; Lindgren & Muñoz, 2013; Busby, 2015; De Wilde et al., 2020a; Busby, 2021; Nordnes, 2021). In this section, I will review some major sources of EE input that have been studied.

2.4.2.1 Watching TV and films

Watching television and films is considered one of the most common extramural activities preferred by L2 learners (Sundqvist & Sylvén, 2014; Rodgers & Webb, 2011; Nordnes, 2021). Moreover, television shows and films are very popular and easily accessible for L2 learners (Feng & Webb, 2019) through platforms like Netflix and HBO. According to a survey by the European Commission (2014) in the European Union, 86% of EU citizens surveyed engage in watching television almost every day. Moreover, English learners would prefer spending much more time viewing television and films than reading written texts (Peters & Webb, 2018). Webb

(2015) said that extensive TV watching could potentially help learners to enlarge their vocabulary size because TV programs contain a large amount of authentic and frequently repetitive English words. Importantly, watching TV and films gives learners opportunities to have access to natural language in use by native speakers in context and different accents, slangs, and appropriate expressions that they probably are not taught in the classroom (King, 2002; Díaz Cintas & Fernández Cruz, 2008). It is a fact that English dominates TV programs of many countries in the world (Dovring, 1997), and one of the reasons is probably because British and American movies and shows are the most preferred programs amongst people, especially in Europe (Legrand, 2012).

However, English proficiency attributed to watching TV varies among countries because not all TV programs are in English. For example, countries like the Netherlands, Scandinavian countries, and Portugal have TV programs and movies often subtitled instead of being dubbed into the L1 (European Commission, 2011c; Lindgren & Muñoz, 2013). As a result, people from these countries will probably have different exposure to English compared to other countries like France, Germany, Spain, and Italy, where movies and TV shows are dubbed (Lindgren & Muñoz, 2013; European Commission, 2011c). When watching subtitled programs, viewers are simultaneously exposed to content from the sound in the FL and its translation to their L1 in the subtitles (Lindgren & Muñoz, 2013). On the other hand, dubbing can only provide viewers with the local language, so subtitling is said to be an aid to SLA (d'Ydewalle & Van de Poel, 1999). Rodgers & Webb (2020) conducted a study on incidental vocabulary learning and found that learners could learn 25% of unknown target words after watching ten episodes of a TV series. Therefore, learners' vocabulary acquisition is likely to benefit from watching subtitled TV programs and movies. Hence, TV can be a useful and important learning resource of authentic L2 input for L2 English learners (Peters & Webb, 2018).

2.4.2.2 Playing digital games

Playing digital games is one of the most popular activities, especially in Nordic countries, as shown by many studies (Jensen, 2017; Sundqvist & Sylvén, 2014; Nordnes, 2021). It is well-known that the default language of interaction and communication in a lot of game environments is English (Stenberg, 2011; Waters, 2007; Sundqvist & Sylvén, 2012), and playing games is a recreational activity created not for language learning purposes. However, when players engage in playing games, it offers L2 English learners a beneficial and useful out-

of-classroom vocabulary learning platform (Coxhead & Bytheway, 2015; Nordnes, 2021; Sundqvist & Sylvén, 2012). In games, the input is the live video conversation with other players, visual texts, game instruction, and messages, so learners are exposed to both spoken and written input (Coxhead & Bytheway, 2015). The amount of time spent playing is also a key focus in games because, for learning vocabulary, more time spent on games has been found to enhance learners' vocabulary knowledge (Sundqvist & Sylvén, 2012). Digital games often provide players with ample opportunities to encounter words repeated many times and notice language used in authentic contexts (Coxhead & Bytheway, 2015).

As mentioned above, Sundqvist and other researchers carried out many studies on the relationship between playing games and L2 vocabulary competence (Sylvén & Sundqvist, 2012; Sundqvist & Sylvén, 2014; Sundqvist & Wikström, 2015; De Wilde et al., 2020a; Nordnes, 2021). Their studies showed positive correlations between this out-of-classroom activity and English proficiency. Specifically, those who play games frequently have a richer and more advanced vocabulary source than non-gamers (Sylvén & Sundqvist, 2012). Other researchers also have shown a close relationship and significant correlation between playing games and English vocabulary size (Rankin et al., 2006; Coxhead & Bytheway, 2015). From games, learners could learn and expand their vocabulary size effortlessly and unconsciously.

2.4.2.3 Using the Internet

The use of the Internet and net-based activities have also significantly increased in recent years, which is a tremendous extramural source for L2 learners. In 2010, it was reported that 65% of European people have access to the Internet regularly, and the number of people using the Internet has also increased significantly by 5% every year (European Commission, 2011b). There are more and more social platforms that are used extensively and widely by many people worldwide in many different fields (Kapoor et al., 2018). Social media is a complex area that has not been clearly defined (Kapoor et al., 2018). According to Dewing (2010) and Kaplan & Haenlein (2010), social media platforms are the groups of applications and services based on the Internet and mobile devices allowing users to engage in online activities. Facebook, Youtube, Instagram, Linkedin, WhatsApp, and Snapchat are social media platforms that come to our minds when talking about social media. On these platforms, people around the world can interact and connect, which fosters chances of using English - an international language as a common medium of communication.

Notably, we can see a rapid change in how people use the Internet in the pandemic era. Since the beginning of the Covid-19 outbreak in early 2020, many countries have imposed lockdowns that require people to minimize contact with others, stay at home, and especially work from home if possible and feasible. Most activities such as working, entertainment, commerce, and education have been shifted to digital platforms using the Internet connection, which has made Internet demands increase significantly (Feldmann et al., 2020). Thanks to social media platforms, people find connections with others more easily. Feldmann et al. (2020) also found that imposed lockdowns made the Internet traffic volume increase by 15-20% every week, especially in applications such as Web conferencing, VPN, and gaming. The Internet indeed plays an essential role in supporting human beings in every field, from businesses, education, entertainment to social interactions in everyday life in general and in the pandemic situation in particular (Feldmann et al., 2020). Regarding the benefits of using the Internet on learning English, Sundqvist (2009) conducted a study to investigate the effects of EE on oral proficiency and vocabulary, showing that using the Internet had a strong impact on both the speaking and vocabulary proficiency of learners. This implies that the L2 proficiency of those who do not have many opportunities to use the Internet is likely to be lower than those who frequently use this source.

2.4.2.4 Reading books and newspapers

Other sources like books and newspapers are also excellent sources likely to make a significant contribution to SLA (Busby, 2015). By reading books and newspapers, learners can potentially acquire vocabulary incidentally when words are repeatedly encountered in the texts (Feng & Webb, 2019). Especially, written forms, collocations, meaning, and parts of speech used in various contexts may also be learned unintentionally through a large amount of exposure to the input (Feng & Webb, 2019). Reading a vast quantity of books, newspapers, and other written sources for pleasure can be called extensive reading, which is one of the helpful and effective approaches to expand learners' vocabulary size and knowledge (Feng & Webb, 2019; Horst, 2005; Pigada & Schmitt, 2006). Results from empirical studies have shown that learners can gain vocabulary knowledge through reading with repeatedly encountered unfamiliar words (Pigada & Schmitt, 2006; Waring & Takaki, 2003). Moreover, research on L2 incidental vocabulary learning has also indicated that the more unfamiliar words learners encounter through reading, the greater the vocabulary knowledge they gain (Chen & Truscott, 2010).

The informal input outside the classroom can beneficially enhance L2 learners' proficiency, specifically English vocabulary, as indicated by findings from various empirical studies (Sylvén & Sundqvist, 2012; Sundqvist & Sylvén, 2014; Sundqvist & Wikström, 2015, Rankin et al., 2006; Coxhead & Bytheway, 2015).

3 Methodology

3.1 The present study

The present study took its starting points from the studies of Sundqvist (2009), Busby (2015), and Jakobsson (2018) but in a different context. Sundqvist (2009) examined the impacts of EE on the English proficiency of Swedish students and found a significant association between EE and students' English proficiency. So did Busby and Jakobsson, who tested Norwegian students and found that EE and English proficiency have a positive relationship. The study set out to investigate whether the relationship between EE and proficiency is similar in Vietnam to those in previous studies, given the very different context. Moreover, it is interesting to look into the relationship between students' place of growing up, especially between those from urban areas and rural areas, and their English proficiency.

The following research questions need to be addressed:

1. How much EE exposure do Vietnamese students actually have?
2. Does extramural input have an impact on Vietnamese students' English proficiency? If it does, to what extent?
3. Do places where participants grow up have effects on students' English proficiency?

It was predicted that the participants in the current study would have participated in a lot of extramural digital-based activities because, as mentioned in chapter 2.4.1, young Vietnamese people might have benefited from the fast-growing Internet in Vietnam. Most of them are equipped with technology devices and Internet connections, which increases the chances of being exposed to extramural activities outside of school. However, the participants were expected to have less EE than in previous studies because of watching dubbed TV shows/ movies, starting age of using digital devices, and the amount of time spent on EE, but that due to new technology, the fast-growing Internet access they were still expected to have some EE exposure.

It was predicted that there would be a relationship between EE and English proficiency, but it might be to a lesser degree than in previous research because of the lower volume of EE and higher relative importance of learning in school.

Moreover, it was speculated that places where the participants grow up would have certain influences on their English proficiency. Urban participants were predicted to outperform those who grew up rurally, as mentioned in section 2.2.3.3, due to the inequality between the two areas in terms of educational distribution and socio-economic circumstances. The urban participants might have more opportunities to have access to English than the rural participants.

3.2 Participants and procedure

3.2.1 Participants

Vietnamese undergraduate students (18-25 years old) were targeted for participation in the present study. They were assumed to have ample opportunities to have exposure to digital devices and EE from an early age compared to other older people in Vietnam since they were born in the age of information and technology. The participants for the study were recruited by contacting the teaching staff at a public university in Vietnam to ask for their help. It is worth noting that the university is located in an urban area. They were asked to inform their students about the survey, either by email or information on the classes' online learning site.

Eventually, data on English background and a Vocabulary Levels Test (VLT) (Webb et al., 2017) were collected from a total of 254 students whose ages ranged from 18-35. There were some participants who were excluded from the sample. They were excluded because of some reasons which could affect the validity and reliability of the results. Firstly, one 35-year-old female participant was excluded because she was not in the targeted age range. Secondly, five participants, who reported that Vietnamese was not their L1, were also excluded from the sample since the current study aimed to test the English proficiency of Vietnamese native speakers only. Thirdly, two participants reported that they had English as an L1 and were excluded for the same reason. Lastly, one participant, who mentioned the gender of both being female and 'do not want to mention,' was excluded because it indicated that the participant might not have taken the survey in a serious manner. Thus, this participant was removed to strengthen the reliability of the study. In total, there were 9 participants excluded from the final analysis. After these participants were excluded from the data because they did not fit the study, 245 participants (225 females, 19 males, 1 unmentioned gender) remained.

3.2.2 Materials and procedure

The quantitative method was used to elicit the data in this study, specifically a survey including a questionnaire and the VLT. Quantitative research is said to be objective, controlled, generalizable, and the results are not affected by observer or researcher but interpreted based much on 'facts' (Nunan et al., 1992). The questionnaire, the VLT, and a consent form were administered to the participants using www.nettskjema.no, a platform developed and operated by the University of Oslo to design and conduct online surveys.

3.2.2.1 The self-report questionnaire

The use of survey research aims to collect self-report data from individual subjects (Dörnyei & Csizér, 2012). The typical instrument used for this purpose is the questionnaire which is said to be among the most common methods of collecting data in L2 (Dörnyei & Csizér, 2012). The questions asked in the questionnaire were very much based on three previous Ph.D. and Master theses - Sundqvist (2009, p. 231-238), Busby (2015, p. 105-115), and Jakobsson (2018, p. 73-81). These theses focused on the relationship between EE and English proficiency, but in totally different contexts. However, those questions were modified in order for them to fit in the current study.

The questionnaire's content mainly focused on the participants' educational background, English knowledge, EE, and motivation for learning English. Regarding the EE, exposure to social media, access to digital devices, gaming, listening to English-language music, traveling abroad, reading, and watching TV programs/ movies were the chief focus of the investigation. The questionnaire contained mainly close-ended questions to make sure that participants would complete the questionnaire and it would not take the participants too long to answer. Moreover, the answers from close-ended questions were clear and more suitable for quantitative analyses.

Also, the survey was administered in Vietnamese, which is the participants' L1, to avoid misunderstandings. All questions can be found in Appendix 1.

3.2.2.2 The Vocabulary Levels Test

As mentioned in section 2.4.2, vocabulary is at the core of SLA and also an essential building block of language. Therefore, it makes sense to measure learners' vocabulary knowledge

because vocabulary size is directly related to the ability to use English in various ways (Schmitt et al., 2001). One of the most widely used vocabulary tests to test L2 learners' lexical knowledge is the VLT (Read, 2000), which was initially developed by Nation (1983) and updated by Schmitt et al. (2001). This VLT firstly included four levels (2000, 3000, 5000, 10000) and an academic vocabulary level and was originally used to determine L2 learners' word levels. Researchers can test all levels or choose the first levels to test L2 learners if they are unlikely to have mastered subsequent levels (Webb et al., 2017). It is important to know that the VLT measures receptive vocabulary, not productive vocabulary (Webb et al., 2017). This test was intentionally chosen because it has been tested and validated by the authors. Kremmel & Schmitt (2018, p. 3) stated that: "There is currently no better measure available for the purpose of diagnosing the written receptive word meaning knowledge of learner at different levels."

The updated version by Webb et al. (2017) was used in the current study. In this version, there have been some changes compared to the previous versions. The new version still consists of five levels, but the word frequency levels were changed into 1000, 2000, 3000, 4000, and 5000. Vocabulary items in the test were sourced from Nation's (2012) British National Corpus/Corpus of Contemporary American English word lists, which are said to reflect current English better (Webb et al., 2017). The updated version of the VLT from 1000-word level to 5000-word level from Webb et al. (2017) was inputted into Nettskjema together with the consent form and the questionnaire (see Appendix 3).

3.2.2.3 Procedure

The participants were informed that they would participate in an L2 study and that if they chose to participate, they would complete a questionnaire and the VLT. The teaching staff from the university in Vietnam helped pass the survey link to their students and asked them to complete it as one of their exercises without being graded, which helped guarantee that participants completed the survey seriously and sincerely and avoided the data being corrupted. The research used an online survey that was unsupervised and anonymous. The participants could choose to do the survey at their convenient time. It is important to note that the survey was not timed.

The survey consisted of 3 parts in the following order: the consent form (see Appendix 2), the VLT (Webb et al., 2017), and the self-report questionnaire. All instruments were administered

at the same time in order to avoid the attrition rate as much as possible. The instructions were given explicitly and clearly in writing at the beginning of each part. After reading the consent form and consenting to participate in the survey, participants would move on to complete the VLT. The participants were informed that there were five levels of vocabulary included in VLT. There were 10 clusters of words in each level, and in each cluster, three definitions corresponded to 3 words out of 6 given words that test-takers had to match with. Their answers to the VLT were scored dichotomously. A correct answer received a score of 1; an incorrect answer was given a score of 0. This would give every participant a score for correct answers between 1 and 150. The self-report questionnaire about their English background would come as the last task.

The survey was piloted on 3 Vietnamese native speakers to check the understanding, and changes were made accordingly.

3.3 Ethical considerations

In any studies related to human subjects, ensuring their safety, well-being, rights, and privacy is always the priority (Gonzalez-Marquez et al., 2007). Therefore, ethical considerations have been taken very seriously in the current study. Participants in this research were provided with enough information about the experiment that precisely and comprehensively described the procedure of conducting the research and their extent of participation and contribution such that subjects knew what would be happening. Concretely, they were handed out a consent form specifying all information about the current study. After reading the consent form, if they agreed to give the consent to participate in the study and that their data would be used for the study, they would move on to complete the next parts of the survey, which included the VLT and the questionnaire.

The targeted participants of the current study were above 18 years old so that they could consent to the study themselves. In terms of confidentiality, the participants were informed that their confidentiality would be safeguarded in the consent form. That is, their personal information related to the study, such as gender, age, and so forth, were used to analyze the data in the present study in the aggregate form and would only serve for research purposes following data protection legislation. All the data were stored safely according to NTNU's guidelines.

The project was planned and carried out according to the ethical regulations stipulated by the Norwegian center for research data (NSD) and approved by NSD, a company owned by the Ministry of Education and Research of Norway.

4 Results and findings

In this chapter, the results from the self-report questionnaire and analyses using SPSS version 27 will be presented below.

4.1 Background variables

Many questions were asked about participants' background information in the self-report questionnaires, namely age, gender, participants' education, language, residential areas, and parents' education. The purpose of examining background variables is to add a broader perspective to the general picture of the participants in a study (Sundqvist, 2009). Therefore, in this section, data collected from the questionnaires will be analyzed and presented below.

4.1.1 Study's major, the L1, residential areas, and genders

Almost all the participants in the present study reported that they majored in English Linguistics (93.1%), the rest sporadically came from the field of Mathematics (2.4%), IT (1.6%), English Pedagogy (0.8%), Construction (0.8%), Physics (0.4%), Economics (0.4%), and Journalism (0.4%).

Regarding participants' L1(s), most of them (88.98%) reported that Vietnamese was their only L1, 11.02% said they also had other L1s besides Vietnamese. Participants were not asked which other languages they spoke in order to avoid collecting potentially sensitive information.

One question explicitly asked about participants' residential areas: where participants originally came from (countryside or city areas). The collected data showed that the countryside students outnumbered the urban ones. Specifically, 78% of participants answered that they were originally from rural areas, and 21.6% said they came from urban areas, 0.4% did not mention the residential area.

When it comes to genders, the number of females in this study outnumbered the number of males. There were 91.8% females, whereas only 7.8% were males, 0.4% did not mention the gender.

4.1.2 Parents' highest level of education

Parents' level of education has been found to correlate with students' academic performance significantly (Shoukat et al., 2013; Acharya & Joshi, 2009). Therefore, questions 6 and 7 in the questionnaires were asked about the participants' parents' educational backgrounds. Seven options were provided for participants to select, as shown in Table 1 below.

Table 1: The highest level of education of participants' parents

	General (N = 245)		Urban areas (N = 53)		Rural areas (N = 191)	
	Father	Mother	Father	Mother	Father	Mother
Secondary school (up to year 9)	22.4%	28.6%	2.9%	2.9%	19.6%	25.7%
High school (up to year 12)	43.7%	45.7%	10.6%	13.5%	33.1%	32.2%
Bachelor's degree	26.5%	15.1%	7.3%	4.9%	19.2%	9.8%
Master's degree	0%	0.4%	0%	0%	0%	0.4%
Doctoral degree (Ph.D.)	0.4%	0%	0%	0%	0%	0%
Others	2.9%	2.4%	0.4%	0%	2.4%	2.4%
Don't know	5.3%	8.6%	0.4%	0.8%	4.9%	7.8%

It is clearly shown by Table 1 that a majority of participants' parents had high school as the highest level of education (43.7% for fathers and 45.7% for mothers), and the percentage of parents who had finished higher education was quite low. The present study showed that a higher percentage of parents from rural areas had a higher education, specifically Bachelor's degree, than parents from urban areas (19.2% compared to 7.3% for fathers and 9.8% compared to 4.9% for mothers, respectively).

4.2 Participants' English learning

4.2.1 Time spent on learning English

Participants in the present study had been learning English for quite a long time. Of all participants, 20% had been learning English for less than eight years, 28.8% said they had been

learning English for 8-9 years, 22.9% for 10-11 years. Smaller percentages of participants had had 12-13 years and more than 13 years of learning English (15.5% and 13.1%, respectively).

Participants were also asked how much time they spent on learning English in a day in total. It was explained in the questionnaire that this amount of time included time of learning English at school, outside of school, and any time that participants spent on learning English consciously themselves. There was 17.6% of participants who reported spending less than 1 hour a day on learning English. The majority of participants indicated that they spent one hour or two hours a day on learning English (28.6% and 25.3% respectively); 17.6% of participants said they spent 3 hours a day on learning English. Eleven percent of participants reported spending more than 3 hours on learning English daily.

When it comes to writing in English, participants were asked how much time they devoted to writing in English weekly. Nearly a fourth (24.9%) of participants responded that they spent less than 1 hour on writing in English a week. Almost a third of participants reported that they spent 1-3 hours per week on writing in English (32.7%); 15.1% said that they spent 3-5 hours a week on writing in English, 19.2% spent 5-7 hours on writing in English on a weekly basis. Only a small percentage of participants (8.2%) spent more than 7 hours a week on writing in English.

In terms of speaking, Table 2 shows to whom participants reported speaking English most frequently.

Table 2: Who do participants often speak English to most frequently

	Daily	Weekly	Monthly	Never
Friends	45.85%	35%	10.4%	8.75%
Family	6.9%	9.1%	14.3%	69.7%
Teachers	64.6%	30.9%	3.7%	0.8%
People through online games	12.4%	14.6%	7.5%	65.5%
Yourself	60.6%	19.9%	7.2%	12.3%
Others	15.7%	13.6%	12.6%	58.1%

Participants were asked whom they spoke English to and how frequently they spoke to those people. As shown from Table 2, friends and teachers were those people to whom the participants spoke English most frequently. The participants of the current study did not use English so often with their family members, as 69.7% of participants reported that they never had a conversation in English with their family. Interestingly, the participants in this study probably created an English environment themselves to make up for lacking a real one to practice their English as nearly two-thirds (60.6%) of participants said they spoke English to themselves every day, and 19.9% said they spoke English to themselves weekly. However, a significant proportion also said that they never spoke English to themselves (12.3%).

4.2.2 Attitudes and motivation on learning English

To find out about attitudes and motivation of Vietnamese students towards learning English, a list of statements was asked whether participants agreed with to some extent or not, as shown in Table 3 below.

Table 3: Participants' attitudes and motivation towards learning English

	Very true	Somewhat true	No opinion	Somewhat wrong
I feel a sense of achievement when I can have a conversation in English, so it motivates me to learn English.	58.4%	34.7%	6.1%	0.8%
English will help me in my future career	84.3%	12.8%	2.9%	0.0%
I find English very hard to learn	31.4%	50.4%	12%	6.2%
I am very confident to have a conversation in English	18.5%	39.1%	28.8%	13.6%
Whenever speaking English, I am afraid of making mistakes.	49%	39.6%	8.2%	3.2%
English is an important part of the school curriculum.	86.5%	8.6%	4.5%	0.4%

When it comes to motivation, the majority of participants agreed that they had a sense of achievement when they could have a conversation in English, which was one of the reasons

why they were motivated to learn English (58.4% said it was very true and 34.7% said it was somewhat true). There were 84.3% of participants who agreed that it was true that English would help them in the future. Moreover, English was mostly said to be a crucial part of the study program. However, quite a large proportion of the participants had no opinions about their confidence when they talked in English (28.8%). Although they were aware of the importance of learning English in many ways, they confronted some difficulties when learning this language (see Table 3).

4.2.3 Self-evaluation and assessment

Figure 1 illustrates the data of participants rating their English proficiency out of a scale of 10, in which the level of proficiency increases from 1 to 10.

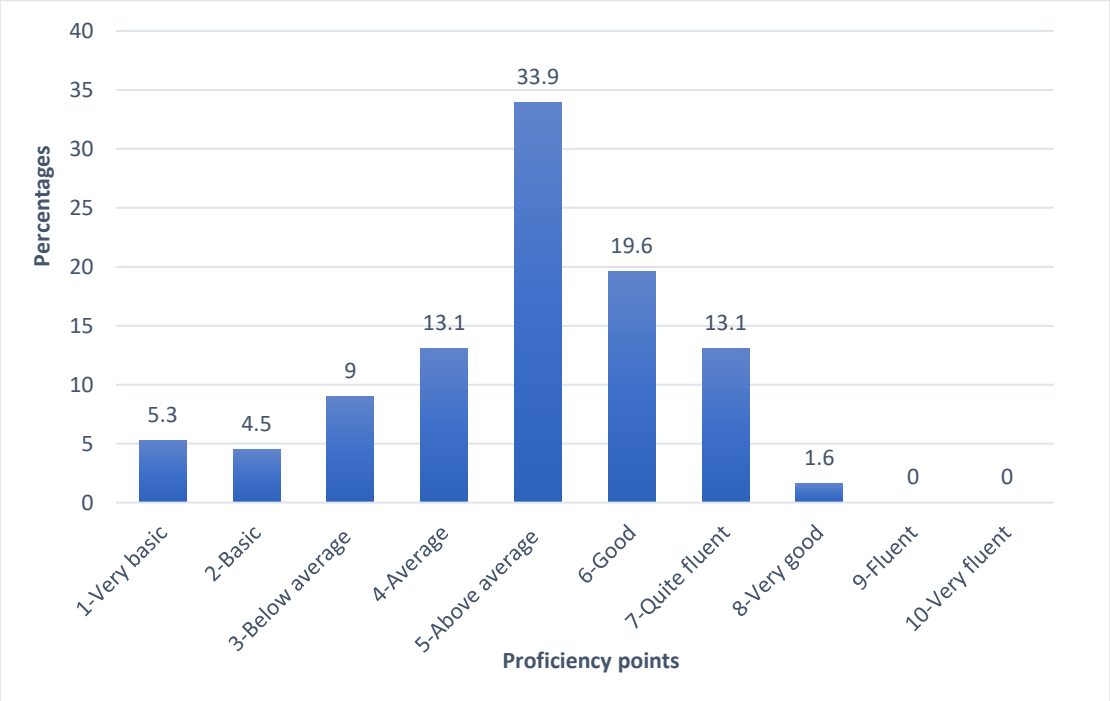

Figure 1: Participants' general English proficiency self-evaluation

It can be seen from Figure 1 that no participants thought that they were very proficient or fluent in English (0%) (level 9 or 10 out of 10). More than a third of students evaluated themselves as having level 5 out of 10 in English proficiency (33.9%), 19.6% graded their English proficiency at level 6 out of 10, only a small proportion of participants were confident to rate their English proficiency at the level of 7 and 8 (13.1% and 1.6% respectively). A clear majority (almost

70%) of the participants reported being above average, which is not surprising if they compared themselves to a Vietnamese average, given that most of them were students of English Linguistics.

They were then asked which skill(s) they thought they were best at, and the data are shown in Figure 2.

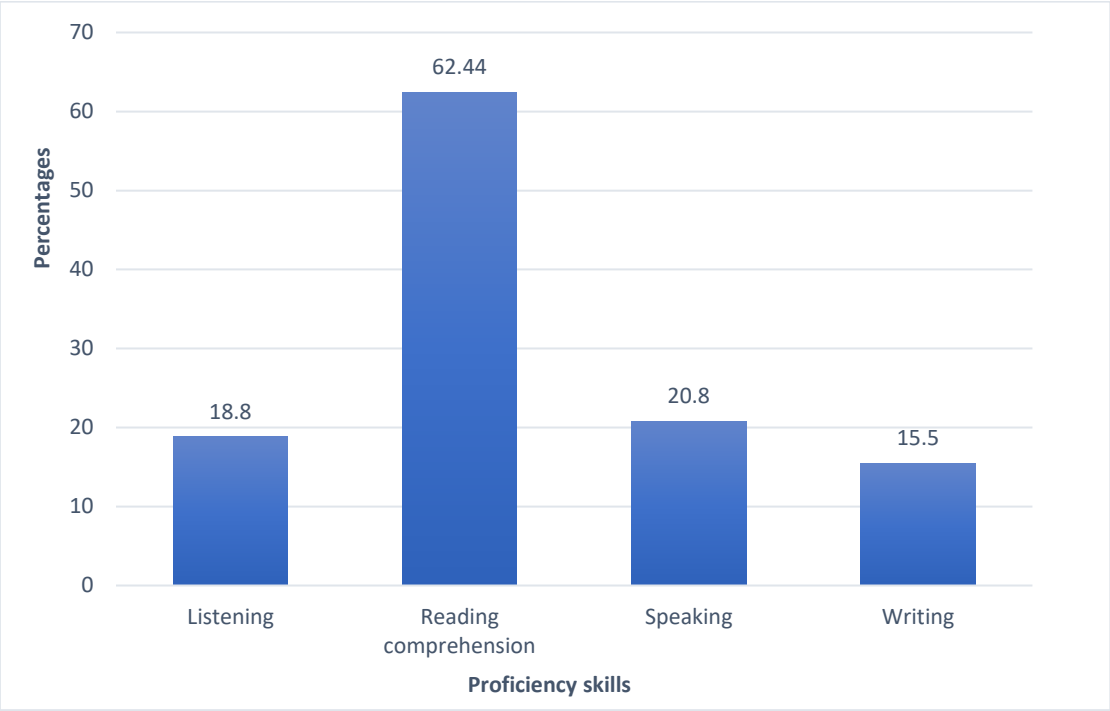

Figure 2: Which skill(s) participants said they are best at

The data demonstrate that most participants thought that they were best at reading comprehension skills. Specifically, up to 62.44% of participants reported that they believed they were best at reading comprehension.

Participants were also asked where they believed they had learned most of their English. The data reveal that more than half of participants reported that their English knowledge came from both inside and outside school (59.2%). It should be noted here that 'both inside and outside school' means that their English had been learned from both inside and outside school, but not necessarily at an equal proportion between inside and outside school. Of all participants, more than a third of participants reported that they learned most of their English from schools

(38.4%). Only a small percentage of participants said they learned most of their English extramurally (5.7%).

The participants were then asked which materials or methods they found most useful and efficient to learn English (Figure 3). Many alternatives falling into two categories: ‘inside school materials’ and ‘outside school materials’ were provided (see Figure 3). ‘Inside school materials’ refer to sources used to learn English inside the school, namely the school's textbooks, inside classrooms, and so on. In contrast, ‘outside school materials’ meant those sources accessed outside of school, such as learning English through listening to English-language music, watching movies, reading in English, and other activities.

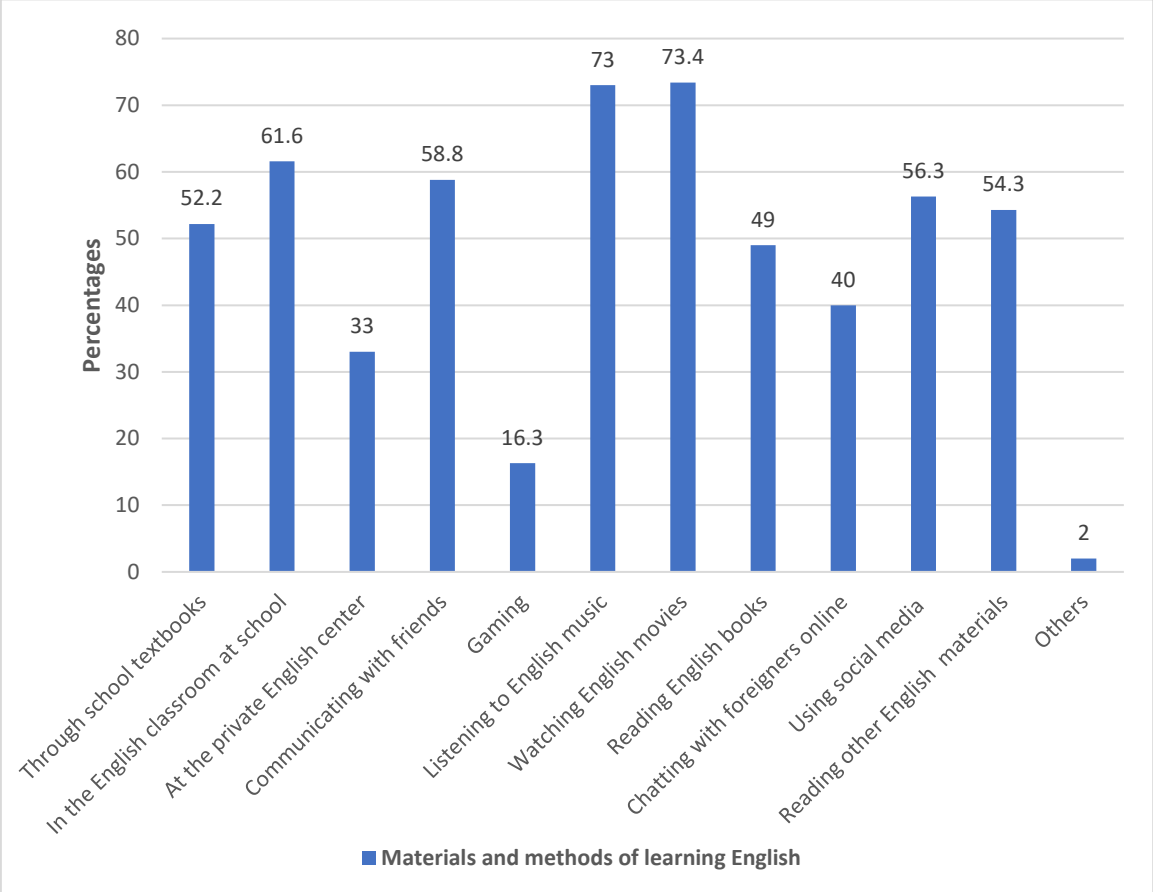

Figure 3: Materials and methods participants found useful and efficient to learn English

As illustrated in Figure 3, the data were consistent with the data shown in the question asking where participants believed they had learned most of their English. A large percentage of participants (above 50%) reported that inside school materials were helpful for them in learning

English and so were outside school materials. Interestingly, two activities with the highest response rate were extramural (73% for listening to English music and 73.4% for watching English movies).

4.2.4 Using digital devices

Figure 4 shows the data of participants' starting age of using digital devices.

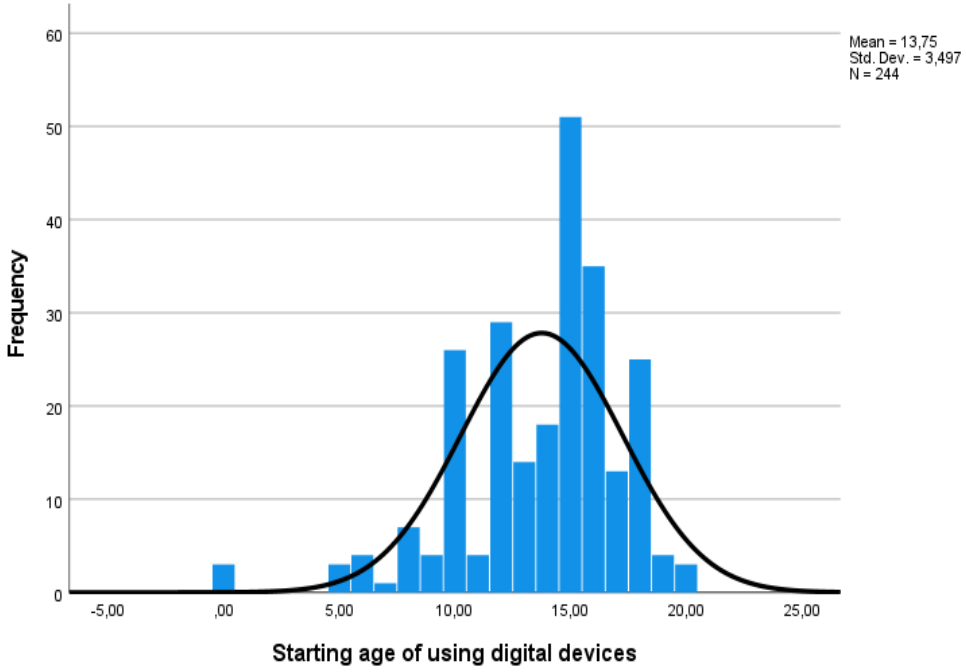

Figure 4: Participants' starting age of using digital devices

The mean for the whole sample was 13.75 years old, and the Standard Deviation (SD) was 3.497, which means that the participants' starting age of digital devices was quite widespread. The mode was 15 years old, with 20.8% of the participants reporting using digital devices from this age. It was followed by 16 years old with 14.3% of participants. Only a small percentage of participants started using digital devices from an early age, especially before 10 years old. As shown from histogram 5, the data are skewed to the right, which means that more participants started using digital devices at later ages than earlier ages.

When it comes to time spent on using digital devices, 24.9% of participants spent less than 3 hours on using digital devices daily. Nearly half of participants reported that they spent from 3 to 5 hours every day using digital devices (41.6%), more than a fourth of participants said they

spent from 5 to 7 hours on those devices daily (26.1%). There were even participants who reported that they used more than 7 hours a day on digital devices (7.3%).

4.3 English extramural activities

English extramural activities were categorized into five subcategories: using social media, gaming, listening to English-language music, traveling abroad, reading in English, and watching TV programs/movies. The analyses were carried out based on the data elicited from these subcategories in the questionnaires.

4.3.1 Using social media

The participants were asked how much time they spent on using social media on a daily basis. The data are shown in Figure 5.

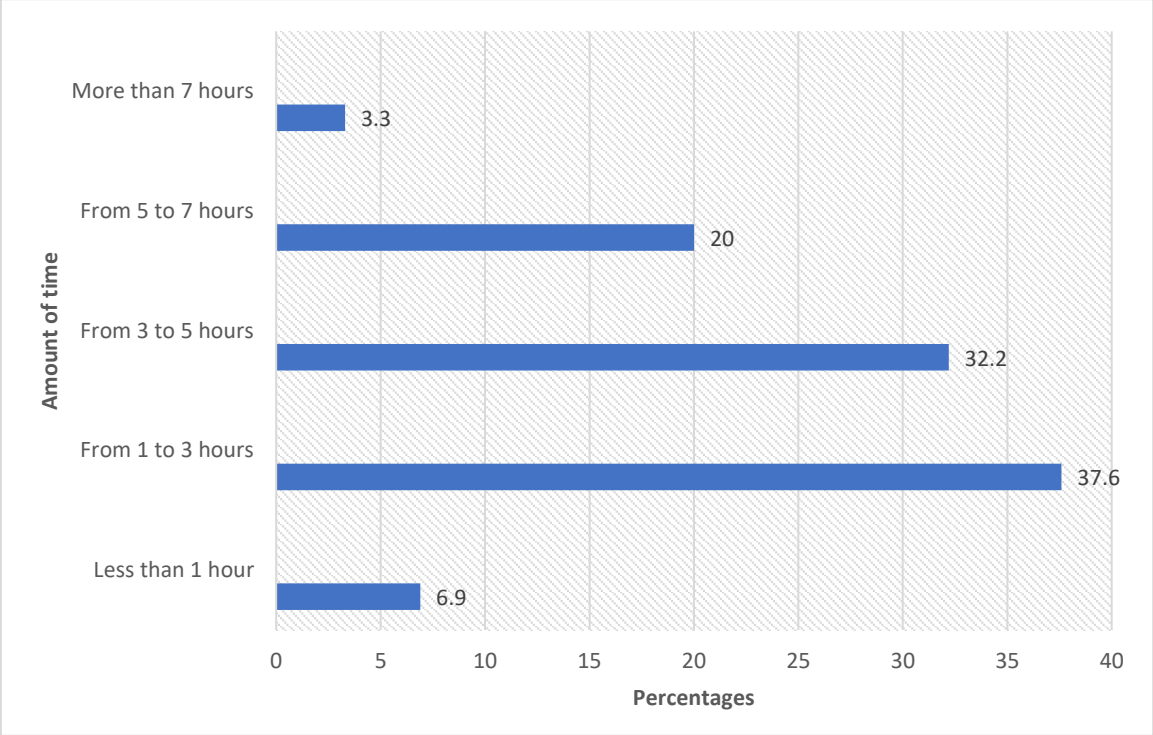

Figure 5: The amount of time participants spent on social media

More than a third of participants reported that they used social media on an average of 1 to 3 hours a day (37.6%), approximately a third said they spent 3-5 hours (32.2%) on social media

daily, 20% of them consumed 5-7 hours on social media per day. Both categories of less than 1 hour and more than 7 hours got less than 10% response.

4.3.2 Gaming

The participants of the present study were asked which games they often played. Figure 6 shows the different games played by the participants.

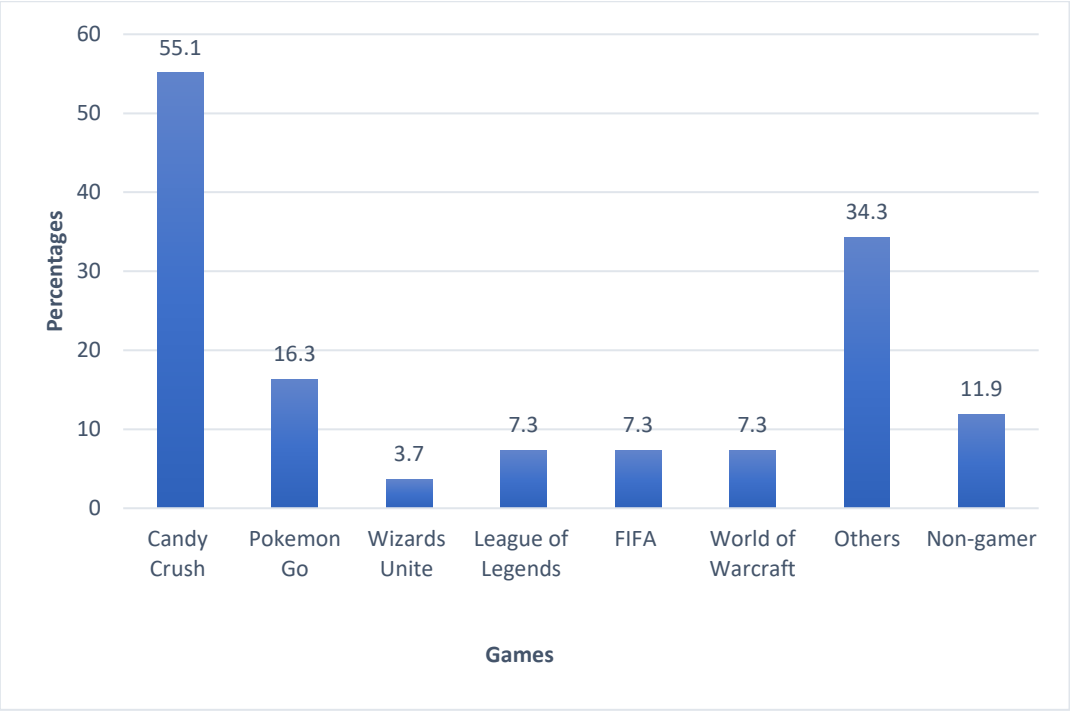

Figure 6: Games that participants often played

It is clearly illustrated in Figure 6 that Candy Crush was the most widely played game out of all the given games amongst the participants in the current study, as up to more than a half (55.1%) of the participants reported that they often played Candy Crush. Pokemon Go took second place in the popularity of games played by the participants with 16.3%. There were many other games that were reported by only small numbers of participants, such as Fortnite, Pubg, Tetri, Call of Duty, and so on. It is worth noting that Candy Crush and Pokemon Go are games containing minimal linguistic input. On the other hand, interactive games, such as League of Legends, World of Warcraft, and FIFA, or Call of Duty, containing more linguistic stimulus, were played by a small number of participants of the present study. Moreover, many students reported that they did not play digital games at all (11.9%).

The participants were asked how many hours they spent on playing games weekly. Figure 7 illustrates the amount of time participants spent on gaming activities on a weekly basis.

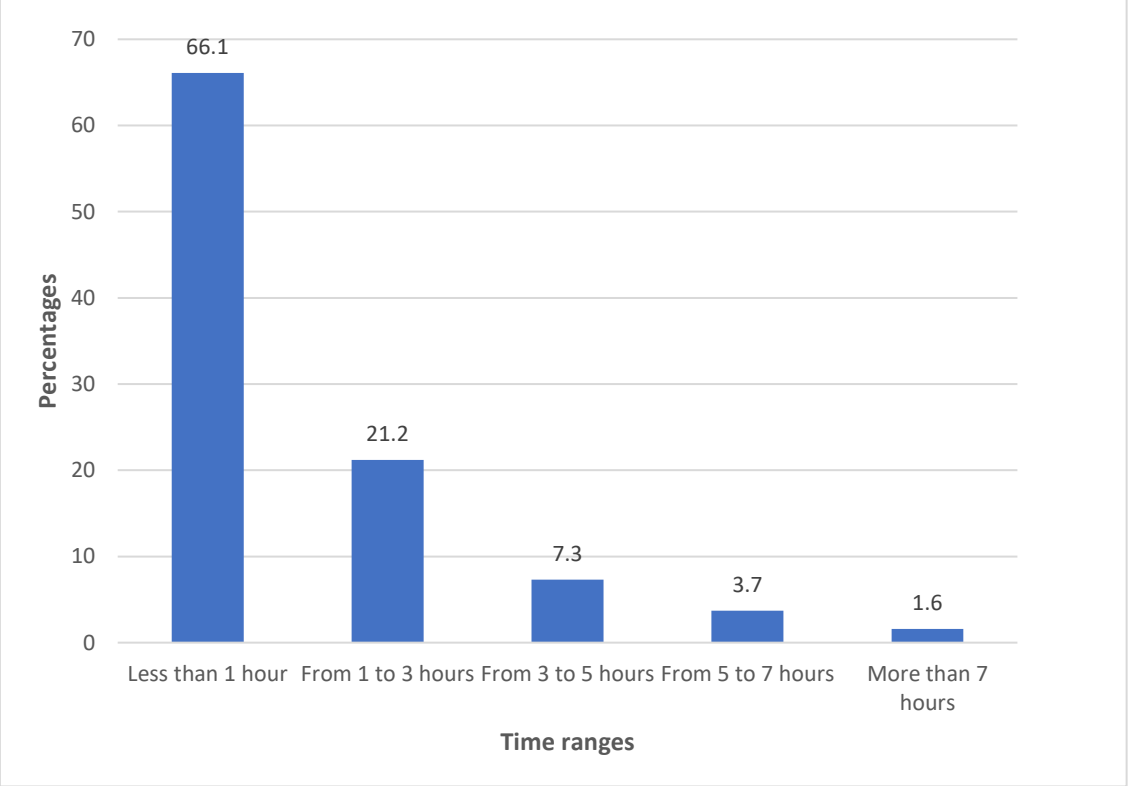

Figure 7: The amount of time participants spent on gaming

More than half of the participants (66.1%) reported that they spent less than 1 hour a week on playing games. There were quite many participants reporting that they spent 1-3 hours a week on playing digital games (21.2%). Moreover, when asked how often participants watched streaming games, most participants said that they never watched them (75.9%).

4.3.3 Listening to English-language music

Participants were asked how much time they devoted to listening to English-language music a week. Fifteen point five percent listened to English-language music for less than 1 hour a week. The highest percentage (33.5%) of participants spent from 1 to 3 hours listening to English-language music every week. From 3 to 5 hours a week on average (22.4%) got the second-highest percentage of participants' responses, followed by the category of 5 to 7 hours with

20%. There were quite many participants who also spent up to more than 7 hours (8.6%) listening to English music every week.

4.3.4 Traveling abroad

The current study participants were asked whether they had traveled abroad or not (Figure 8).

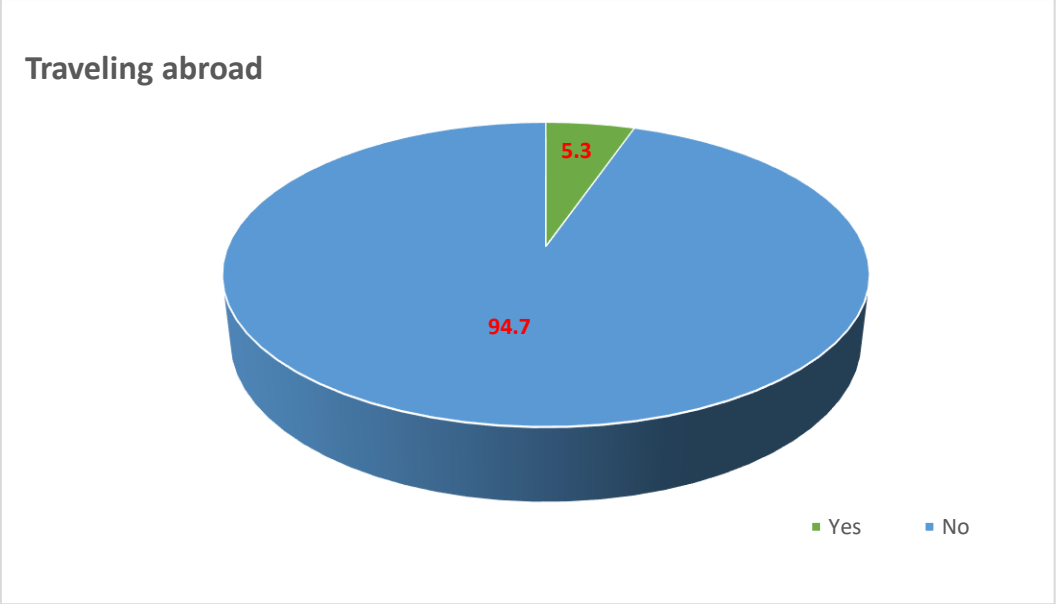

Figure 8: Participants were asked if they had traveled abroad

Almost all the participants reported that they had never been abroad (94.7%), whereas only a small proportion of participants had traveled outside of Vietnam (5.3%). The participants had been to different countries: Japan, Indonesia, China, Russia, the UK, Thailand, Laos, South Korea, the US, and Singapore. Those participants who answered that they had traveled abroad were then asked what the purpose of their trips abroad was and how long they stayed there. Of all the participants having traveled abroad (13 people), 9 participants said they traveled for tourism purposes; 3 said they went abroad for cultural exchange; 1 participant said she went to Japan to study Japanese. Eleven participants said they spent less than 3 months abroad during their trips; one participant said he spent from 3-12 months, and one said she spent more than 12 months.

4.3.5 Reading in English

Participants were asked how much time they devoted to reading in English on average on a weekly basis, both inside and outside of school. More than a third of participants responded that they spent from 1 to 3 hours a week reading in English, which accounted for the highest percentage of participants in the study (39.6%). Nearly a fifth of participants spent from 3 to 5 hours on reading in English weekly (18.4%); 19.2% of the participants reported consuming from 5 to 7 hours a week on reading in English. Only a small percentage of the participants reported spending more than 7 hours a week on reading in English.

In the questionnaire, the participants were asked what types of texts they read, and seven types of texts were provided for choosing (Figure 9). This question examined the participants' reading habits only in English, so it was noted in the questionnaires that all sources listed were referred to both digital and physical versions in English. In addition, the frequency of reading those materials was also addressed in this question. The data are shown in Figure 9 below.

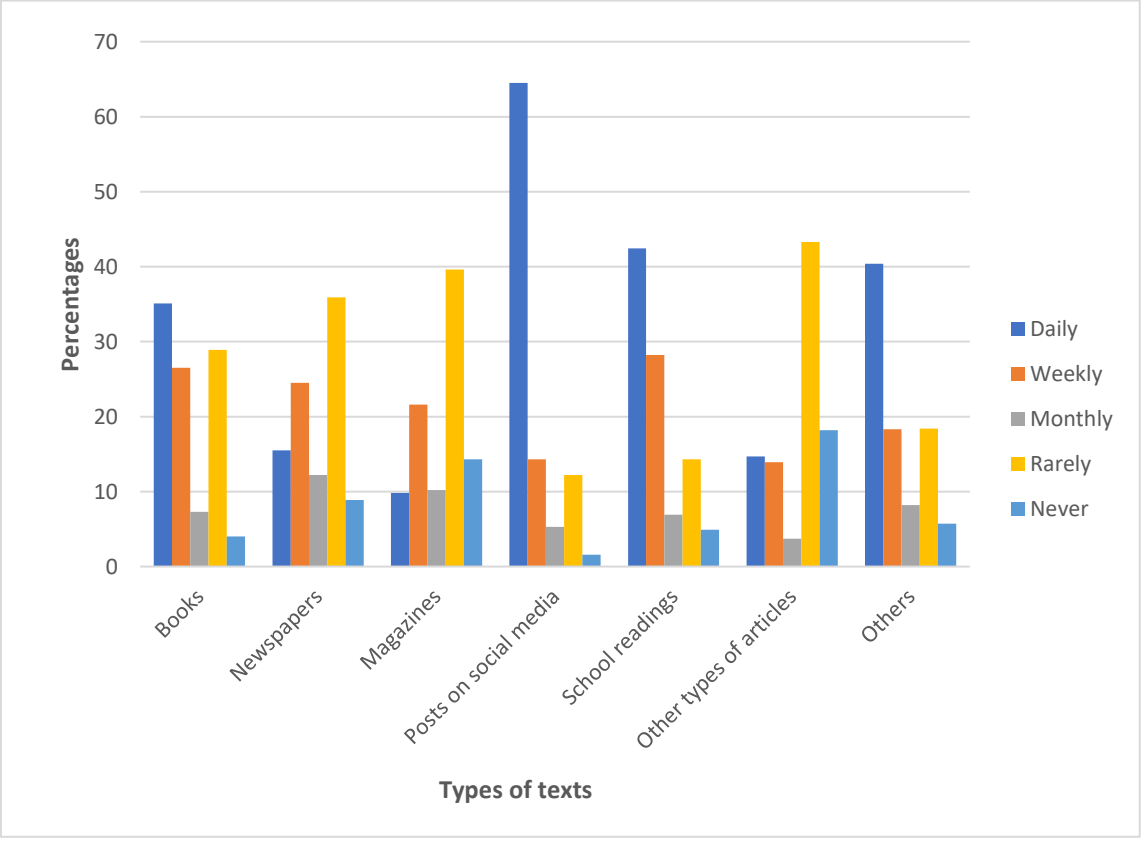

Figure 9: What participants read and how often they read

Most noticeably, posts on social media (64.5%), school readings (42.44%), and books (35.1%) were read the most by participants daily. On the other hand, the types of texts that were reported to be rarely read by the participants of the study were other types of articles (43.3%), magazines (39.6%), and newspapers (35.9%).

4.3.6 Watching TV shows/movies in English

When it comes to watching TV shows/movies in English, the participants were asked how much time they consumed those programs a week. Twenty percent of participants reported spending less than 1 hour on watching TV shows/movies in English weekly. The highest percentage of the participants of the current study (43.3%) said that they spent 1 to 3 hours a week on watching TV shows/movies. The amount of time spent watching TV shows/movies increased beyond 1 to 3 hours, the percentage of participants reporting spending those amounts of time decreased. That is, there were increasingly lesser and lesser percentages of participants who said spending from 3 to 5 hours (19.2%), from 5 to 7 hours (12.7%), and more than 7 hours (4.9%) watching TV shows/movies in English a week.

Participants were then asked what types of shows or movies they often watched. There were seven options given to the participants, and they could choose as many options as applied to them (Table 4). They were also asked how frequently they watched those programs, and four frequency levels were also given.

Table 4: Types of TV shows/ movies in English participants often watched and how often they watched those programs

	Daily	Weekly	Monthly	Never
News	40.4%	31.4%	16.7%	10.2%
Reality shows	33.5%	31.4%	20%	11%
Political shows	15.5%	28.2%	26.5%	26.5%
Talk shows	27.3%	33.9%	23.3%	12.2%
Series	38.4%	34.3%	18.4%	7.3%
Movies	32.7%	37.1%	19.2%	6.1%
Others	9.4%	13.9%	11.8%	38.8%

The collected answers from participants showed that news, reality shows, talk shows, series, and movies were among the most widely and frequently watched programs by participants. In addition, it seems that the watching activities listed in the present study were also the most-watched programs as a big percentage of participants reported that they never watched other types (38.8%).

Participants were then asked to indicate how often they relied on subtitles when watching TV shows/movies in English. A big proportion of participants (41.6%) said they 'usually' relied on subtitles, 40% of the participants said they only 'sometimes' needed subtitles, and 18.4% of them 'always' found subtitles helpful. At the same time, none of the participants reported that they 'never' relied on subtitles.

Participants then were asked which languages(s) they would prefer to have in the subtitles (Figure 10).

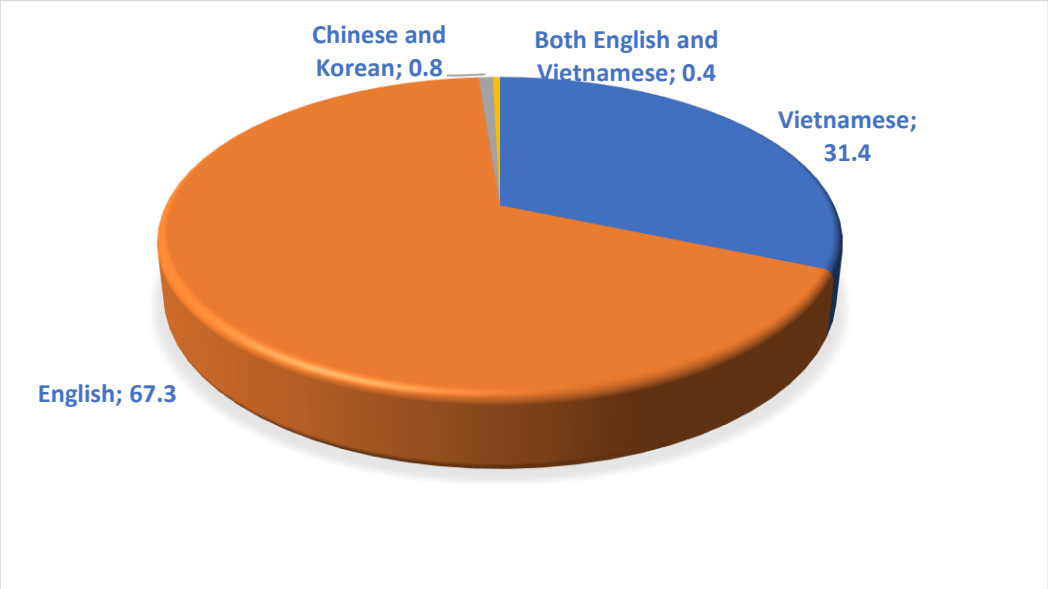

Figure 10: Which language the participants preferred to be subtitled on TV shows/movies

In terms of used subtitles on TV shows and movies, above two-thirds of participants said they would prefer to have TV programs and movies subtitled in English (67.3%), and only 31.4% of them wanted Vietnamese in the subtitles. In addition, there were two students (0.8%) who would like to have subtitles in languages other than English and Vietnamese, namely Chinese and Korean.

4.3.7 The language used by participants on extramural activities

Table 5 shows the language used most often by the participants on their digital devices, games, and social media.

Table 5: Language participants used on online games, digital devices, and social media

	Vietnamese	English	Other(s)
Online games	50.6%	42.9%	6.5%
Social media	76.3%	22.4%	1.2%
Digital devices	63.7%	35.5%	0.8%

As for games, as mentioned in section 4.3.2, not many participants played games. When asked which language they used on gaming platforms, more than half of the participants playing games reported that they used Vietnamese (50.6%). A big proportion of them (42.9%) reported that they used English in games. In contrast, a smaller percentage of participants used English on social media and digital devices (22.4% and 35.5%, respectively). Most of them had Vietnamese as the most frequent language on those platforms and devices.

4.3.8 Importance of extramural activities to participants' English knowledge

For each extramural activity investigated, participants were asked to what extent they thought those activities had contributed to their knowledge in English.

Table 6: Self-report importance of extramural activities to participants' English knowledge

	Yes, to a great extent	Yes, to some extent	No, not at all
Gaming	10.6%	72.7%	16.7%
Listening to English-language music	48.2%	51%	0.8%
Watching TV shows and movies	60.4%	39.2%	0.4%
Reading in English	60.4%	39.2%	0.4%
Chatting with foreigners on the Internet	50.6%	49%	0.4%

It is apparent from Table 6 that the majority of participants reported that the given EE activities had 'to a great extent' or 'to some extent' contributed to their English knowledge, but gaming differed from others, with only 10.6% of participants saying that it had influenced 'to a great extent' on their English proficiency. However, it was still reported by a large percentage of participants (72.7%) that it had 'to some extent' contributed to their English knowledge. For playing digital games, it unsurprisingly had the highest percentage of participants (16.7%) saying that this activity did not contribute at all to their English knowledge out of the 5 EE activities, which could be because a significant proportion of participants did not engage in digital games.

Reading in English was the EE activity reported as important to English learning by the highest percentage of participants. Nearly two-thirds of them said that it had contributed significantly to their English knowledge (60.4%). The rest said that reading in English had 'to some extent' helped make an essential contribution to their English knowledge (39.2%). Similarly, listening to English-language music, watching TV shows and movies, and chatting with foreigners on the Internet were reported to contribute a lot to participants' English knowledge (see Table 6). However, very few participants (1 participant for each activity) noted that listening to English-language music, reading in English, chatting with foreigners on the Internet, and watching TV shows/movies did not contribute to their English knowledge.

4.3.9 Conversion EE amount of time ranges into points

As mentioned before, the amount of time spent on the EE activities reported by participants was in ranges. However, to conduct correlation analyses, those ranges were converted into points, as shown in Table 7.

Table 7: Conversion of the EE amount of time ranges into points

EE amount of time ranges	Points
Less than 1 hour	1
Less than 3 hours	2
From 1 to 3 hours	3
From 3 to 5 hours	4
From 5 to 7 hours	5
More than 7 hours	6

The corresponding points of the time ranges did not necessarily represent the exact amount of time that participants spent on their EE activities. They rather represent the amount of time participants spent on the EE activities relative to each other.

Table 8 illustrates the mean and the SD of participants' mean points of each EE activity.

Table 8: Mean points and SD of EE activities

N = 245	Watching TV shows/movies	Reading	Listening	Gaming	Using social media
Mean	3.2	3.4	3.57	1.53	3.68
SD	1.39	1.41	1.44	.90	1.11

The mean points for the time spent on EE activities varied quite a lot, especially for using social media, whose mean point was higher if compared to the mean points of other activities. It is worth noting that the amount of time participants spent on using social media were investigated daily and other activities on a weekly basis.

4.4 VLT scores and other variables

In this section, mean scores of the five levels in VLT will be presented. In addition, the relationship between VLT scores and other variables, namely EE and residential areas, will also be presented below.

4.4.1 Mean scores of the VLT

The mean scores of participants in each level of the VLT are shown in Table 9. The maximum score for each level was 30 since each correct answer was given 1 point, as mentioned in chapter 3. Therefore, the maximum score for the test was 150.

Table 9. Mean scores on the VLT

N = 245	1000	2000	3000	4000	5000	Total 5 levels
Mean	24.5	20.3	17	15	13.7	90.5
SD	7.2	8.3	9	9	9.4	38.4

It is seen from Table 9 that the mean scores gradually decreased from the most frequent word levels (24.5 out of 30 in level 1000) to the less frequent levels (13.7 out of 30 in level 5000). The mean for the whole sample was 90.5 (out of 150; SD=38.4).

4.4.2 VLT scores versus participants' EE from the two residential areas

To study whether students from urban areas had more exposure to English extramurally than rural students, the mean points of EE activities of both groups (rural and urban groups) were examined, as shown in Table 10.

Table 10: EE mean points between urban students and rural students

	Residential areas	N	Mean	SD	Sig. (2-tailed)
Using digital devices daily	Urban	53	4.0	1.4	0.384
	Rural	191	3.9	1.2	
Using social media daily	Urban	53	4.0	1.2	0.034*
	Rural	191	3.6	1.1	
Watching TV shows/movies weekly	Urban	53	3.2	1.3	0.893
	Rural	191	3.2	1.4	
Reading in English weekly	Urban	53	3.3	1.3	0.590
	Rural	191	3.4	1.5	
Listening to English-language music weekly	Urban	53	3.5	1.6	0.671
	Rural	191	3.6	1.4	
Gaming weekly	Urban	53	1.6	1.0	0.324
	Rural	191	1.5	0.9	

*p<0.05

It is shown from Table 10 that the urban students spent more time on most of the EE activities than rural students except for the reading in English and listening to English-language music activities. However, the independent sample t-test only showed a significant difference (p=0.034) between urban and rural students in using social media daily, not in other EE activities.

The starting age of using digital devices of each group was also examined, as shown in Table 11.

Table 11: The Mean and SD of starting age of using digital devices of students from different residential areas

	Urban areas	Rural areas
N	53	191
Mean	13.6	13.9
SD	3.5	3.8
Sig. (2-tailed)	0.901	0.807

As mentioned in section 4.2.4, most of the participants in the current study started using digital devices quite late, and the mean for the whole sample was 13.75 years old. Comparing the two residential groups' mean age of starting age of using those devices revealed that students from urban areas expectedly started using those devices slightly earlier than countryside students. However, the independent sample t-test showed no significant difference between the two groups of participants.

Independent-samples t-tests were carried out to see if there were any significant differences between participants from rural areas and those from urban areas for the scores in each level and on the total of all five levels in the VLT

Table 12: Mean scores at each level of the VLT by residential areas (one participant did not mention her residential area)

	Residential areas	N	Mean	SD	Sig. (2-tailed)
1000 Level	Urban	53	25.2	7.5	0.439
	Rural	191	24.3	7.2	
2000 Level	Urban	53	22.0	8.6	0.100
	Rural	191	19.9	8.2	
3000 Level	Urban	53	19.5	8.8	0.029*
	Rural	191	16.4	9.1	
4000 Level	Urban	53	17.4	9.3	0.026*
	Rural	191	14.3	8.8	
5000 Level	Urban	53	16.5	9.7	0.014*
	Rural	191	12.9	9.2	
Total 5 Levels	Urban	53	100.5	39.6	0.033*
	Rural	191	87.8	37.8	

*p<0.05

As shown in Table 12, rural participants' mean VLT scores at all levels were lower than those of urban ones. The independent-samples t-tests showed statistically significant differences between rural and urban participants at all levels of the VLT except for levels 1000 and 2000.

4.4.3 VLT scores versus EE

4.4.3.1 VLT scores with traveling abroad

It is important to acknowledge that too few participants had traveled abroad to make a meaningful variable for statistical analyses.

People who had traveled to English-speaking countries were assumed to have more opportunities to practice their English in those countries than those who had traveled to non-English speaking countries. The VLT scores between the two groups were compared in Table 13. Group A included those who had traveled to the US, the UK, and Singapore. Group B comprised of participants having traveled to the rest of the countries mentioned in section 4.3.4. (Numbers in the column ‘participants’ do not indicate the participants' rank in the VLT; these numbers are randomly assigned participant numbers within each group). Two other groups were created to see if the duration abroad made any differences in participants’ VLT scores. It should be noted here that the participants were the same as in groups A and B, but they were grouped differently. Group C had participants who stayed abroad not necessarily only in English-speaking countries from 3 to more than 12 months, while group D consisted of those who had traveled abroad and stayed there for less than three months.

Table 13: Mean VLT scores of different groups

Groups	Participants	VLT scores	Study sample's mean VLT scores	Groups	Participants	VLT scores
Group A	1	78	90.5	Group C	1	142
	2	139			2	113
	3	72		Group D	1	78
Group B	1	142			2	139
	2	96			3	127
	3	110			4	57
	4	88			5	87
	5	113			6	99
	6	99			7	72
	7	127			8	88
	8	57			9	96
	9	87			10	11

It can be seen from Table 13 that traveling to English-speaking countries did not guarantee that the participants' vocabulary scores would be higher than those of who had traveled to non-native English-speaking countries. Also, too few participants had been abroad for a long period in the current study to make a strong claim that the duration abroad truly affects VLT scores.

4.4.3.2 VLT scores with other EE activities

Backward linear regression analysis was carried out between VLT scores and every individual EE activity to see if there were any positive correlations between these variables and which EE activity contributed the most to the VLT scores. It should be noted here that VLT is a dependent variable in this study, and EE activities are independent variables.

Table 14: Backward linear regression between EE activities and the VLT scores

N = 245	B-Coefficient	SD. Error	T	Sig.t
(Constant)	90.119	15.380	5.860	.000**
Watching TV shows/movies	1.836	2.067	.888	.375
Using digital devices	4.077	2.374	1.718	.087
Using social media	-2.993	2.769	-1.081	.281
Reading in English	4.103	1.711	2.397	.017*
Listening to English-language music	1.473	1.959	.752	.453
Gaming	.242	2.812	.086	.931
Residential areas (1=urban; 2=rural)	-13.226	5.877	-2.251	.025*
Adjusted R2	.034			
** p<0.01,	*p<0.05			

Table 14 shows how the different independent variables, EE activities, affected the dependent variable, the VLT scores. As clearly demonstrated by Table 14, the best predictor of language proficiency, in this case, is reading in English, which had the B-coefficients of 4.103, and significantly correlated with VLT scores (p=0.17). The B-coefficient indicates that for every 1 point raised in exposure point for reading in English, the vocabulary score increases by 4.103. The backward linear regression did not show any significant correlations between watching TV shows/movies, using digital devices, using social media, listening, and gaming and the VLT scores. Adjusted R2 is the value helping to measure to what extent changes in the independent variables affect the dependent variable or the strength of the association between those variables. In table 14, we can see that the adjusted R2 value is 0.034, which means that the independent variables – EE variables explained 3.4% of changes in the dependent variable – the VLT's scores.

The B-coefficients of residential areas were also shown to correlate with the VLT scores (p=0.025). The direction of the correlation means that the rural participants had significantly lower VLT scores than the urban participants.

4.5 Summary of main results

The most important findings of the current study are highlighted below.

Firstly, the results from the questionnaire showed that all participants engaged in most of the EE activities investigated in this study. Especially, time was spent chiefly on 'using social media' daily as the mean point for this EE activity was very high (3.68) compared to other activities. The popularity order of EE activities based on the mean points was found to be 'using social media', 'listening to English-language music', 'reading in English', 'watching TV shows/movies', and 'gaming.' The participants' starting age of using digital devices was quite late (mean=13.75, mode=15, and SD=3.497).

Secondly, most of the participants in the current study had been learning English for more than eight years. Participants also reported that they spent on average 1-3 hours a day on learning English both inside and outside school. The participants wrote 1-3 hours in English a week. When it comes to speaking English, it was found that friends, teachers, and themselves were the ones to whom the participants often spoke English. When asked which skills the participants thought they were best at, a big percentage of participants said they believed they were best at Reading comprehension (62.44%), which is one of the receptive skills. The data also revealed that the participants in the current study thought that learning English was beneficial for their future careers and self-growth and acknowledged some challenges in learning English.

Thirdly, most of the participants reported that they thought they had learned English both from inside and outside school. However, a bigger percentage of participants said that most of their English had been learned from schools, while only a very small number of participants reported that they had learned most of their English from outside of school. In addition, both inside the school and extramural materials were reported to be useful and efficient.

Fourthly, the result indicated that there was only a significant difference between urban and rural participants in using social media daily, not in other EE activities. Moreover, the study

demonstrated significant differences between two residential groups of participants at most levels of VLT, except for levels 1000 and 2000.

Lastly, the results also showed that original residency significantly correlated with the VLT scores ($p=0.025$). Of all EE activities, reading was the only activity that significantly correlated with the VLT scores ($p=0.017$). No significant correlations were found between using social media, listening to English-language music, reading in English, and watching TV programs/movies and the VLT scores.

5 Discussion

The primary objective of this study was to examine the relationship between EE and Vietnamese participants' English proficiency. To fulfill this overarching goal, the analysis focuses on answering three main questions. First, how much EE exposure do Vietnamese students actually have? The second question explores whether EE has any impact on students' English proficiency, specifically the vocabulary levels. The last aims to investigate if urban participants have different exposure to EE and different English proficiency than rural participants.

As mentioned, it was anticipated that the participants in the current study had much engagement in out-of-school computer-based activities in the sense that they were university students with access to the Internet. Moreover, previous research has shown in different contexts, such as in Norway, that undergraduate students have extensive EE input (Busby, 2015; Busby, 2021). It was found that the participants of the current study had an extensive engagement in digital devices (c.f. 4.2.4). However, it turned out that the participants in this study did not have massive exposure to EE, which is likely to be the reason for the fact that EE exposure did not have a strong influence on their English proficiency. Compared to previous studies, the participants in the current study did not engage in many EE activities such as gaming which has been found to have a significant relationship with English proficiency (Sylvén & Sundqvist, 2012; Sundqvist & Sylvén, 2014; Jensen, 2017; De Wilde et al., 2020a; Busby, 2015; Busby, 2021; Nordnes, 2021). In addition, the influence of EE on English proficiency was not strong compared to previous research (Busby, 2015; Busby, 2021; Sundqvist, 2009; De Wilde et al., 2020a; Nordnes, 2021), which may be explained by the relatively low volume of exposure to EE of the participants. In addition, the residential areas where the participants came from had an important effect on the participants' English proficiency. The results reported here confirm these hypotheses and predictions.

The above questions are answered and discussed in detail below based on the findings and analyses from the questionnaire and the VLT. The limitations of the current study and suggestions for future research are also discussed at the end of this chapter.

5.1 Amount of EE exposure of the participants

The first research question concerns how much EE exposure Vietnamese students actually have. As the findings revealed, all participants engaged in most EE activities investigated in the current' study, but they did not engage very much in those specific activities. Of all the investigated activities, 'using social media' was the most popular one. However, using social media did not necessarily involve English exposure because the participants mostly reported not using English on their social media.

Regarding gaming, not many participants of the present study frequently played games that have much language input. Many studies about the correlation between online gaming and English proficiency have been conducted in Sweden, Norway, and Belgium by Sylvén & Sundqvist (2012), Sundqvist & Sylvén (2014), Nordnes (2021), and De Wilde et al. (2020a) over the last decade. Sylvén & Sundqvist (2012) and Sundqvist & Sylvén's (2014) studies showed that those who gamed more frequently had a better performance in L2 tests than those who did not spend much time gaming online. The results in the current study revealed that only a small number of participants engaged in online games. In addition, more than half of the participants (66.1%) reported that they spent less than an hour per week on digital games. Additionally, most of the participants never watched the streaming of games. It may be because of the sample characteristics of this study, in which the overwhelming majority of the participants were female. Males have empirically been found to play games more frequently and spend more time gaming than females (Greenberg et al., 2010; Sundqvist & Sylvén, 2014). Moreover, more than half of the gamers in this study said that they used Vietnamese in their digital games (cf. 4.3.7). This indicates that the game's default language is Vietnamese, and if the participants could set the language to English, they might have preferred to keep it in Vietnamese. On the other hand, this could also suggest that English terminology in games might be too complex for the participants to understand.

When it comes to reading in English, a large percentage of the participants in the present study reported spending 1 to 3 hours reading in English per week. There were quite many participants saying that they spent from 3 to 5 and even 5 to 7 hours reading in English every week (cf. 4.3.5). The amount of time the participants reported that they spent on reading in English weekly in this study was much higher than the amount of time reported spending on reading in English of Sundqvist's (2009) participants, whose mean was 0.20 hours a week for books and

0.02 hours a week for magazines and newspapers. The participants in the present study mainly read posts on social media, books, and school textbooks. Especially posts on social media were read very frequently by the participants (64.5% of participants read such posts on a daily basis). It could simply be that posts on social media and books are the main sources of reading for young people.

In terms of watching TV shows/movies in English, the participants in the present study reported watching various shows and films in English. Of all reported types, news, reality shows, talk shows, series, and movies were among the participants' most widely and frequently watched media types. It would mean that the participants may have had exposure to vocabulary from a variety of different topics. A majority of the participants spent from 1 to 3 hours a week on watching TV shows/movies in English. There were also nearly a third of the participants who spent from 3 to 5 hours and from 5 to 7 hours on watching TV shows/movies in English weekly (cf. 4.3.6). While watching TV shows/movies in English, around 60% of the participants ‘usually’ or ‘always’ relied on subtitles (cf. 4.3.6); none of the participants reported that they 'never' needed subtitles.

In the current study, the VLT mean score of the whole sample was 90.5 out of 150 (c.f. 4.4.1). The mean scores for levels 1000, 2000, 3000, and 4000, in turn, were 24.5, 20.3, 17, and 15 out of 30 for each level. As mentioned in section 2.4.2, learners need to have knowledge of 2,000 to 4,000 to understand 95% of spoken input, and 6,000 to 9,000 to understand 98% of spoken input in movies and TV shows (Webb & Rodgers, 2009a; Webb & Rodgers, 2009b; Nations, 2006). The mean scores of the participants in the current study at the VLT would mean that they actually did not have enough vocabulary to gain 95% comprehension of spoken English input in movies and TV shows, as suggested in the above-mentioned studies. However, when asked which skill(s) the participants believed they were best at, most of the participants reported reading comprehension (cf. 4.2.3). This seems to indicate that they might have understood texts with their limited vocabulary size, but their listening comprehension is behind their reading comprehension. It may be the reason why they rely on subtitles. On the other hand, Busby (2015) showed that a very high percentage of her Norwegian participants said that they ‘never’ needed subtitles or only ‘sometimes’ needed subtitles. It should be noted that participants from Busby’s research were also undergraduate students. In Busby (2021), Norwegian undergraduate students' proficiency was tested through the VLT. Although Busby (2021) used the old version of the VLT in her study, some word levels were still equivalent to the version used in the present

study. The results from the levels of 2000, 3000, and 5000 in her research were all much higher than the equivalent levels' mean scores from the current study (cf. 4.4.1). Specifically, her participants scored above 28 out of 30 in all three mentioned above word levels of the VLT, except for the sociology group in the level 5000 with 26.3 out of 30. In contrast, the mean scores of the participants in the current study in the levels 2000, 3000, and 5000 were 20.3, 17, and 13.7, respectively. This indicates that the participants in the current study have a smaller vocabulary size than Norwegian participants from Busby's study. This can, however, be explained by the fact that the participants from Busby's study had extensive exposure to EE through various activities outside of school, and she also found a significant correlation between EE and the VLT's scores.

Concerning listening to English-language music, the highest percentage of the participants spent from 1 to 3 hours a week on listening to English-language music (c.f. 4.3.3). There were also participants consuming from 3 to 5 hours, 5 to 7 hours, even more than 7 hours a week on listening to music in English. This result, however, was not in line with Sundqvist's study (2009), in which her participants devoted very much time to listening to music (mean=6.58 hours/week). There were even participants who spent a maximum of 41 hours a week on listening to English music in her study. This suggests that Swedish students listen to more English-language music than Vietnamese students do.

In regard to social media, the participants in the current study reported spending a large amount of time on social media (cf. 4.3.1). Using social media was ranked in the first place out of all the investigated EE activities in the popularity order based on the EE mean points. However, it was found that the language used by the participants of the current study on social media platforms was mostly in Vietnamese (76.3% of participants reported using mostly Vietnamese on their social platforms). It may be that the participants may have felt more comfortable using Vietnamese on their social media platforms than English because they did not have sufficient English proficiency. However, that might not be the case if the participants used social media to only connect with their close friends who are also Vietnamese, or they are only interested in following Vietnamese celebrities. To them, using Vietnamese on social media might be more natural and convenient than English. Therefore, using Vietnamese on social media may not necessarily have said anything about the participants' English proficiency. However, it would mean that they might not have had much exposure to EE input on social media platforms.

The last activity which may provide EE input investigated in this study was traveling abroad. The participants of the current study did not have very much experience traveling abroad. The results showed that only 5.3% (13 participants out of 245) of the participants had traveled abroad. Most of them had traveled for a short time. It was unsurprising that not many participants in the present study had traveled abroad due to the given current socioeconomic conditions in the geographic area investigated. As mentioned in section 4.1.1, most of the participants in the current study originally came from rural areas where the economic conditions may have made it difficult to afford trips abroad. This finding contrasts with the result from Sundqvist's study (2009), in which a majority of her participants had spent time traveling outside Sweden.

In terms of English learning inside the classroom, the results showed that most of the participants in the current study had been learning English for more than eight years. The participants in the present study reported that both inside-school and extramural materials were efficient and useful for their English learning. However, a larger percentage of participants reported that most of their English had been learned from schools. In contrast, only a very small number of participants said that they had learned most of their English extramurally (cf. 4.2.3). This suggests that the participants could be aware of the influences of EE on their English proficiency, but because the EE volume that they had had might not be sufficient to make a great contribution to their English proficiency compared to the English inside school. The fact that most of the participants believed that they had learned most of their English in school suggests that, compared to previous research, the participants did not have massive EE exposure. In contrast, most Norwegian participants from Jakobsson's study (2018) believed that they had learned most of their English extramurally, which indicates that Norwegian participants from his study had ample exposure to EE outside of school compared to the participants of the current study. Additionally, Henry (2014) also found that more than half of Swedish 16-year-old students believed they were learning more, or at least as much English, extramurally compared to inside school. There were even 16% of his participants who reported that they believed that they had learned nearly all of their English from EE. However, Tovazzi (2011) found that older participants tend to report inside classrooms as being important to their knowledge of English. In contrast, younger participants are more likely to report EE activities.

To sum up, the results suggest that the participants did not have extensive exposure to EE input. Using social media was the most popular activity out of all EE activities investigated, but participants mainly used Vietnamese on social media.

5.2 The effects of EE on participants' English proficiency

The second research question asks if EE input impacts the English proficiency of Vietnamese students and to what extent. The results reported here confirmed the hypothesis that EE did indeed affect the participants' English proficiency, represented by the receptive vocabulary levels in this study, but not to a great extent compared to previous research. There are some interesting details which are discussed below.

Before discussing the influence of EE activities on English proficiency, it is important to discuss using digital devices. It should be noted that digital devices are not in themselves an EE activity, but they are a prerequisite for many potential EE activities to happen because the participants cannot use social media or play digital games without a digital device. As the findings found above, the participants started using digital devices quite late compared to the participants in the other studies (Sylvén & Sundqvist, 2012; Sundqvist & Sylvén, 2014; Jensen, 2017; De Wilde et al., 2020a). Some participants even did not have access to digital devices until they got into the university. The participants in the current study reported spending a lot of time on using digital devices (c.f. 4.2.4). This would mean that the participants' chance of exposure to EE at the time of the study through using digital devices was relatively high.

In the present study, reading in English was the only EE activity that was found to have a positive and significant correlation with the participants' English proficiency. The participants of this study were very well aware that reading in English had significantly been an essential contribution to their English proficiency. As mentioned in section 4.1.1, the overwhelming majority of the participants came from the major of English Linguistics, which might lead to the consequence that they may have had more extensive readings in English than students from other fields. Previous studies have found that extensive reading plays a crucial role in L2 learning because L2 learners can gain vocabulary knowledge through reading with repeatedly encountered unfamiliar words (Pigada & Schmitt, 2006; Waring & Takaki, 2003). Mason & Krashen (1997) conducted a study in which Japanese students selected the reading material themselves and wrote comments on what they had just read in English. Their results confirmed

the invaluable benefits of extensive reading in English as an FL, as the participants in their experiments showed improvements in English by reading extensively. Moreover, although reading in English is not the most popular activity in the current study, it might be the most consistent activity that the participants had been engaging in because, as mentioned above, most of the participants specialized in the major of English Linguistics. The results from the current study also showed that books in English and school readings in English were two primary reading sources which many participants engaged in daily (35.1% of participants read books in English and 42.44% of participants engaged in school readings in English).

There were no significant correlations found between gaming activities and the participants' English proficiency in this study. This lack of correlation between gaming and English proficiency contrasts with results from previous research. Sylvén & Sundqvist (2012), Sundqvist & Sylvén (2014), De Wilde et al. (2020a), and Nordnes (2021) found a positive and significant correlation between gaming and participants' English proficiency. In addition, Jensen (2017) carried out a study on gaming as an English language learning resource among young Danish children who had received very little instruction in English. The results revealed that gaming with both oral and written input significantly correlated with children's vocabulary scores. This contrast, however, can be explained in that most participants from previous studies engaged in digital games, whereas very few participants in the current study played digital games. Moreover, a large percentage of the participants from the above-mentioned research spent large amounts of time on gaming online. In contrast, the participants in the present study did not spend very much time on gaming, as mentioned in section 4.3.2. Not only whether or not participants play digital games, but also the time they actually spend on such games, has been found to have an impact on participants' English proficiency in previous research, as Sylvén & Sundqvist (2012) found that frequent gamers outperformed less frequent gamers on reading and listening comprehension, and vocabulary tests. Moreover, the types of games that participants of the studies mentioned above engage in probably have many interactions among players and contain a lot of linguistic stimuli, such as League of Legends and massively multiplayer online role-playing games (MMORPGs). In contrast, games, such as Candy Crush and Pokemon Go, which the participants of the current study engaged in, contain minimal interactions among players and language input, which might not have had effects on the participants' English proficiency.

Watching TV shows/movies was also not found to significantly correlate with the participants' English proficiency in the current study. This result contrasts with Peters & Webb (2018), who conducted a study on Dutch-speaking English FL learners about the effects of watching TV on participants' incidental vocabulary learning. Their study revealed that viewing TV significantly correlated with incidental vocabulary learning, especially at meaning recall and meaning recognition. As mentioned in section 4.3.6, most participants in the present study relied on subtitles. In the study of De Wilde et al. (2020b), they found a negative correlation between watching TV and English proficiency, and they explained that those who had lower proficiency might prefer to have L1 subtitles, whereas more proficient learners may choose English subtitles.

The results of the current study might be explained in two following ways. First, the participants may have chosen subtitles in Vietnamese because they needed them for comprehension. In that case, the participants most likely have a too-small vocabulary to understand the spoken input and also to use subtitles in English for support. As suggested by Webb & Rogers (2009a, 2009b), participants need to have a vocabulary size between 2000-4000 words to gain 95% comprehension of spoken English input and a vocabulary size between 6000-9000 words for 98% comprehension in movies and TV shows. In the current study, as mentioned in section 5.1, the participants were found not to have enough vocabulary to gain 95% comprehension of spoken English input, as suggested by Webb and Rogers (2009a, 2009b). Thus, the participants may have needed to have subtitles in Vietnamese and may have relied heavily on these subtitles, meaning that spoken English did not really provide input for language learning. On the other hand, those participants who have TV shows/movies subtitled in English might have understood the contents of the show with the support of written English. However, their listening comprehension skills might be behind their reading comprehension, a suggestion which is corroborated by the results from the questionnaire that the majority of the participants reported that they were best at reading comprehension, not listening skills (c.f. 4.2.3). This result is in line with Van Van (2010), in which he argued that Vietnamese students may know grammar and use written language well but not the other skills like speaking and listening.

Interestingly, most participants of this study preferred to have subtitles in English. This seems to suggest that the participants of the current study are well aware of the benefits of watching movies and TV shows with English subtitles to their English proficiency. As mentioned in section 4.3.6, in Vietnam, TV shows/movies imported from abroad are dubbed in Vietnamese

instead of being subtitled in English, indicating that the participants may not have had much EE exposure when watching TV shows/programs previously in their lives. This is in contrast to the context of Sundqvist's study (2009) in Sweden, where imported TV programs and shows are subtitled instead of dubbed. In addition, the results of the current study showed that nearly half of the participants spent only 1 to 3 hours on watching TV shows/ movies in English weekly (c.f. 4.3.6), while participants from Sundqvist's study (2009) spent more time on watching those programs; specifically, they spent on average 3.71 hours on watching TV and 2.85 hours on watching films. The participants from her study were found to unintentionally become better in English thanks to being exposed to EE frequently.

The results of the present study revealed no significant correlation between listening to English-language music and the participants' VLT scores. This result directly contrasts with Sundqvist (2009), who found a positive correlation between listening to music in English and her participants' English proficiency. A possible explanation for this result might be that the spoken input from English-language music is too fast for the participants to catch up with. Then, the participants may have only enjoyed the music per se but did not have any linguistic takeaway from music incidentally. Moreover, as mentioned above, the participants of the current study did not have sufficient vocabulary to gain 95% comprehension of input, which might be one of the possible explanations for the result. Another possible explanation may be because the participants of the current study had not listened to very much English-language music compared to the participants from the study of Sundqvist (2009) as mentioned in section 5.1.

Moreover, using social media was found not to correlate with VLT scores. This result differed from previous studies, which have indicated that social media platforms have become a favorable place for L2 learners (Mondahl & Razmerita, 2014; Richards, 2015; Tran, 2016). In addition, the result contrasts with results from the study of De Wilde et al. (2020a). They conducted a study of 780 Dutch participants aged 10-12 in Belgium to examine the level of their English proficiency through out-of-class exposure before they received formal English instruction at school. The participants were tested on receptive vocabulary knowledge, listening, speaking, reading, and writing skills. Their study found that social media was one of the most beneficial types of input for learners' English knowledge. The possible explanation for the lack of correlation between social media use and English proficiency in the present study may be that most of the participants in this study used Vietnamese on their social media platforms, so they rarely have exposure to EE on those platforms. In contrast, the participants

from the research of De Wilde et al. (2020a) had massive exposure to EE on social platforms since they were very young.

When it comes to traveling, not many participants had traveled abroad, making it difficult to interpret or draw any conclusions about the relationship between traveling and the participants' English proficiency. However, the comparison of the VLT scores of those who had traveled abroad compared to the scores of those who had not, did not seem to indicate a clear advantage for those who had traveled abroad (c.f. 4.4.3.1).

As anticipated, the participants of the current study engaged in most of the EE activities listed in the survey. However, the relationship between EE and the participants' English proficiency of the current sample was not strong in comparison with relationships between the two variables in other studies in different contexts. This is evident in the small percentage of variance in proficiency that was predicted by EE variables in total. The EE variable in the current study only accounts for 3.4% of the variation of the participants' VLT scores. In contrast, Nordnes (2021) found that the independent variables - EE in his study account for 26.18% of the variation in the dependent variable – vocabulary scores in the Norwegian context. Additionally, Sundqvist's (2009) study showed that the EE variable explained approximately 13% of the variation in participants' vocabulary scores.

5.3 Residential areas, parents' educational level, and participants' English proficiency

The last research question of this study aims to investigate if residential areas where participants grow up affect their English proficiency. The result of the study showed that the residential areas did correlate significantly with the participants' English proficiency. In this study, the participants who grew up in urban areas significantly outperformed those who grew up in rural areas. The differences were significant at most levels of VLT, except for levels 1000 and 2000. This finding was in line with the result of Sundqvist's (2009) study, in which she found that students from rural areas had lower scores than the students from urban areas on four tests: oral proficiency, the English grade, and the two VLTs, and the difference was significant.

When it comes to EE, the results of this study revealed that the urban participants spent slightly more time on most of the EE activities than the rural participants except for the "reading in

English" and "listening to English-language music." However, the independent sample t-test only showed a significant difference (p=0.034) between urban and rural students in using social media daily, not in other EE activities, which indicates that urban participants might have a more stable Internet connection than rural participants, or rural participants had not got into the habit of frequent social media use when they were younger because of Internet connection differences while they still lived in the countryside. The results also revealed that participants living in urban areas started using digital devices slightly earlier than participants living in rural areas. However, the difference was not significant between the two groups in terms of the starting age of using digital devices. These results suggest that the differences in EE exposure do not contribute to the participants' English proficiency in the two areas.

In addition, as mentioned in section 4.1.2, parents' educational level has been found in previous research to have a great impact on students' academic performance. Especially a lot of research has found that the level of parents' education positively impacts the children's language proficiency (Hecht et al., 2000; Lindgren & Muñoz, 2013). For the current sample of the study, it was found that a higher percentage of parents from rural areas had a higher education than parents from urban areas. However, as the results shown above, rural participants had lower scores than urban ones at most levels of the VLT. On the other hand, the urban participants had higher mean points in most EE activities than the rural ones, though only a significant difference was found in using social media. It would mean that the parents' educational background did not connect with the participants' EE exposure and the English proficiency in the current study. This result contrasts with Bing (2014) and Lindgren & Muñoz (2013), in which they found a positive correlation between parents' educational backgrounds and participants' English proficiency.

One possible explanation for the difference in English proficiency between the urban and rural participants is perhaps because of inequality between countryside and cities in terms of the distribution of educational resources such as qualified teachers, materials, infrastructure, and so on (cf. 2.2.3.3). In other words, the participants from rural areas may have lacked the proper instruction in English and adequate equipment for learning English compared to those from urban areas. The results fit the study of Chinh et al. (2014), who carried out a case study in the Vietnam context and found the inequality of access to English of both teachers and students in rural areas. Moreover, they also found that more resources are allocated in the urban areas facilitating learning English and maximizing the efficacy of that process than in rural areas.

One more possible explanation for the lower VLT scores of those who grew up in rural areas might be because of family background and economic conditions. As in the study of Chinh et al., 2014, city students are most likely to be equipped with good facilities and technology. That is, the parents from the cities might have a more robust financial ability than those from the countryside to afford more digital devices for their children. Moreover, urban students are more likely to have more opportunities to connect with English speakers or foreigners than rural students through private English language centers in cities where English classes are affordable for many urban families, but this is not the case for countryside parents. In the urban areas, parents might be more aware of the importance of English in the current society than parents from the rural areas. That is why they might have invested more in their children's English learning.

5.4 General discussion

Three main research questions have been discussed in the above sections. The most important points are highlighted in the following. In addition, there are some interesting points found in the current study, which are also discussed below.

First of all, with regard to EE activities examined in this study, all the participants in the current study engaged in almost all the EE activities investigated. However, they did not have very much engagement in those specific activities, and most of the participants used Vietnamese on their platforms or mainly had exposure to Vietnamese input. The current study investigated five EE activities: using social media, gaming, reading in English, listening to English-language music, and watching TV shows/movies. Using social media was the most popular activity out of all the EE investigated activities, but a large majority of the participants used Vietnamese predominantly on their social media platforms. Therefore, even though the participants spent a lot of time on using social media, they might not have massive exposure to EE on their social media platforms. Moreover, there was only a significant difference between the urban participants and rural participants found in using social media, not in other EE activities. This indicates that urban participants might have a more stable Internet connection than rural participants, or the rural participants had not got into the habit of frequent social media use when they were younger because of Internet connection differences while they still lived in the countryside.

Reading in English was the only EE activity out of all the EE activities investigated to have a significant correlation with the participants' English proficiency in the present study, which might be because the participants mostly specialized in the English Linguistics major. However, the results also imply that the participants did extensive readings in English outside of school because they reported having a lot of readings in English outside of school (c.f. 4.3.5).

Thus, it is possible to make an argument based on the empirical evidence presented above and findings from previous studies that there is indeed a relationship between EE and the participants' English proficiency in the current study (Sundqvist, 2009; Busby, 2015, Busby 2021; Henry, 2014). In other words, EE did have an influence on the participants' English proficiency even though the effects were not strong compared to previous research in the different contexts. Reading in English was the only predictor of English proficiency in the current study. Significant correlations were not found between other EE activities and the participants' English proficiency in the current study. The EE variables only account for 3.4% of the variation of the participants' VLT scores in total. The weak relationship between the two variables might be because the participants did not have massive exposure to EE. There are two points which are worth mentioning here. First, it is impossible to know the direction of the correlation in the present study, whether this is a causal relationship or not. In other words, whether those who read more have become more proficient or if they read more because they have a higher proficiency cannot be determined. Moreover, out of all the investigated EE activities, reading in English was the only activity which was found to correlate with the participants' English proficiency. This suggests that the type of EE activity that the participants engage in might play a role in L2 learning and acquisition (see also Sundqvist, 2009, p. 193).

Secondly, the current study examined two background variables: residential areas and parents' educational levels. There was a significant correlation between the residential areas where the participants grew up and the participants' English proficiency ($p=0.025$). In addition, there were significant differences between the urban and rural participants in the VLT at most levels, except for the levels 1000 and 2000. The participants who grew up in urban areas significantly outperformed those growing up in rural areas, which might be explained by the differences in the socioeconomic circumstances between the two areas. When it comes to EE, there was only a significant difference found in using social media out of the 5 investigated EE activities between the two specific residential groups of participants. Regarding parental education,

parents from rural areas were surprisingly found to have a higher education than parents from urban areas. However, as mentioned above, the rural participants had significantly lower scores than the urban ones at most levels of the VLT. Therefore, it may be concluded that the parents' educational background did not connect with the participants' EE exposure and their English proficiency in this study.

Thirdly, most of the participants in the current study had been learning English for more than eight years. Most of the participants believed that their English had been learned both from schools and outside schools. More importantly, a bigger percentage of the participants reported that most of their English had been learned from schools. On the other hand, only a very small number of participants said they had learned most of their English extramurally. In other words, even though the participants could see the influence of EE on their English proficiency, they did not see it as important as their English input inside school. The fact that most participants reported believing that they had learned most of their English in school suggests that they did not have massive EE exposure. This result directly contrasts with Jakobsson's study (2018), in which most Norwegian participants from his study believed that they learned most of their English extramurally. Additionally, Henry (2014) also found that most of the Swedish 16-year-old students in his study believed that they were learning more, or at least as much English, extramurally compared to inside school. However, a study by Tovazzi (2011) showed that older participants tend to report inside school as being important to their knowledge of English, while younger participants are likely to report EE activities.

Lastly, an interesting finding from the current study was that the participants gained access to digital devices quite late compared to those in previous studies (c.f. 4.2.4). In the current study, the participants' mean starting age of using digital devices was 13.75, and the mode was 15. On the other hand, the participants reported spending a lot of time on using digital devices daily, which suggested that the participants' chance of exposure to EE at the time of the study through using digital devices was relatively high. However, it turned out that the participants of the current study did not have very much exposure to EE, even though they massively engaged in digital devices.

The results from the present study also did not reveal any significant correlations between EE and the participants' English proficiency, except for reading in English. In contrast, De Wilde et al. (2020a) conducted a study on 780 Dutch participants aged 10-12 to examine participants'

English proficiency level through extramural exposure before they started learning English at school. Their study showed that EE exposure did correlate with the participants' English proficiency, and using social media, gaming, and speaking were the beneficial sources of input in their English learning. It is clear that their participants had had extensive exposure to EE and had already learned a lot from EE. On the other hand, the participants of the current study started to have exposure to digital devices much later than those in the De Wilde et al. (2020a) study; some students even did not have access to digital devices until they started their higher education.

As mentioned in section 5.2, using digital devices is not necessarily an EE activity, but EE activities cannot happen without a digital device. Therefore, digital devices are strictly a prerequisite for many potential EE activities to happen. The late starting age for digital devices would mean that the participants of the current study had had relatively few years of exposure to potential EE compared to the participants in the De Wilde et al. (2020a) study. That may be the reason why they had not gotten into the habit of gaming, using English-language social media sources from a young age, which may partly explain why they still used mostly Vietnamese presently. Moreover, the amount of time spent on EE activities has been found to significantly correlate with participants' English proficiency (Sylvén & Sundqvist, 2012). The participants in the study of De Wilde et al. (2020a) might have had larger amounts of time on EE activities throughout their lifetime compared to the participants in the current study.

Moreover, a suggestion might be that the starting age of EE exposure has a role to play in SLA, especially in English learning. In the current study, reading in English was the only EE activity out of all the investigated EE activities which was found to correlate significantly with the participants' English proficiency. This indicates that participants might have had exposure to reading in English since they were very young because the participants did not necessarily need to have a digital device to engage in reading in English. Even though the participants had access to digital devices at the time of the study, they had not grown up with them and may not have had much EE exposure when they were younger. In contrast, the participants from De Wilde et al. (2020a) study were in their early teens and had had massive exposure to EE since they were still very young. According to the research on the role of age in language acquisition, as mentioned in section 2.3.3, the prior-to puberty period is actually an optimal stage for language acquisition, so for language learning, the earlier it is, the better. Therefore, the result from the starting age of using digital devices suggests that exposure to EE is more beneficial if it starts

early. The lack of correlation between EE and English proficiency in the current study might be partly because the participants had exposure to EE quite late compared to previous studies.

When it comes to motivation and attitudes toward learning English, most of the participants of the current study showed a positive attitude towards the English language. The majority of participants in the current study agreed that they had a sense of achievement when they could have a conversation in English, and learning English would help them in their future careers. Because of these reasons, they were motivated to learn English. As mentioned in section 2.3.4, motivation plays an important role in SLA because, as Cohen & Dörnyei (2002, p. 172) said, "without motivation, nothing much happens." However, most of the participants in the current study reported that they had learned most of their English inside school. The results of this study also showed that the participants had lower scores at the VLT than participants from previous studies (c.f. 5.1). As mentioned in section 2.4.2, to understand the spoken input in English, learners need to have a certain number of vocabulary, and it is impossible for an L2 learner to learn these numbers of words in classroom settings. Therefore, learners need to be equipped with informal sources from daily settings in order for them to fully acquire an L2 (De Wilde et al., 2020a). However, the participants of the present study gained access to digital devices quite late compared to those in previous studies, which might be difficult for them to have access to much authentic English input from daily settings. De Wilde et al. (2021) found that contextual language learning makes a prominent contribution to English learning in Belgium, where English is not an official but omnipresent language and has a high status. Moreover, Peters (2018) found that exposure to EE input had a more significant effect on the English vocabulary knowledge of Dutch-speaking Belgian FL learners than the instruction length in classrooms. Therefore, although the participants of the current study were motivated to learn, the English sources might mainly come from classroom settings, which might partly explain why they scored worse at the VLT than those from previous studies where participants had massive exposure to EE.

Furthermore, although the participants of the current study were well aware of the importance of learning English in many ways, they reported that they confronted some difficulties when learning this language. One possible explanation for this might be because of differences between English and Vietnamese, as mentioned in section 2.2.2, which made it difficult for the participants to learn English. For L2 learners, it has been found that language similarities can

make the process of L2 learning easier (De Wilde et al., 2020b; De Wilde et al., 2021). Another reason might be that they lacked authentic English input from extramural sources.

To sum up, the present study showed a relationship between EE to the participants' English proficiency in the Vietnam context, although the relationship was not strong compared to previous studies in different contexts. The participants in the current study did not have massive exposure to EE because most of their extramural activities took place in Vietnamese. The residential areas did certainly affect the participants' English proficiency in that the participants growing up in urban areas outperformed the rural participants.

5.5 Limitations of this study and suggestions for future research

There were a few limitations that are acknowledged in the following and hopefully can be improved in future research.

First of all, there were two limitations regarding the sample of this study. The first was that the sample of this study was homogeneous and a convenience sampling. The recruited participants mainly came from the same province, studied at the same university, and most specialized in the same major, English Linguistics. Thus, it was highly likely that this sample was not a representative sample for the population. Therefore, the results from the current study should be interpreted with caution because they were not necessarily generalizable. Students from English Linguistics might have had a better English proficiency than those from other majors. Future studies would benefit from including participants from more diverse backgrounds. The current study has shed some light on the impact of EE on participants' English proficiency in contexts that are not European, but that due to the limited scope of this study, more research is needed to fully understand the role of EE in a context such as Vietnam.

The second limitation of this sample was an uneven number of participants regarding genders and residential areas. The female participants outnumbered the male participants, and the rural participants outnumbered the urban participants. These disproportions might have affected the results of the study. For example, the number of rural participants in the sample outnumbers urban ones; when a parametric analysis is run, the characteristics of the rural participants on an independent variable could mask the characteristics of the urban ones. Additionally, it would be interesting to look at whether there is a difference between males and females regarding

English proficiency. However, due to the uneven sample size in the current study, it was unreliable and invalid to investigate if there was a difference or not. Therefore, in future research, a more even sample size of participants would be beneficial to show more nuanced and valid data and avoid masking one side on another side of the dependent variable.

Secondly, there were a few limitations in terms of methodological procedures. In the questionnaire, participants were asked about how much time they spent on EE activities; these self-reports may not be completely reliable since participants may not be aware of exactly how much time they spent on various activities. In addition, in the VLT, there was no way to know if the participants honestly completed the test or looked up words. A suggestion for this limitation is that asking participants to take the test in a controlled environment, e.g., in class, might help ensure the quality of the data.

Lastly, one of the primary purposes of this study was to investigate the correlation between EE and the participants' English proficiency by testing receptive vocabulary. It is a fact that language proficiency is not only about vocabulary but also about other areas of language competence such as speaking, listening, and so on. Although the VLT has been tested and validated as an appropriate measure of vocabulary for language proficiency, it does not fully and comprehensively reflect participants' proficiency. However, due to the scope of a Master's thesis, it would not be possible to carry out a laborious and rigorous study on all other areas of language competence. For research with a bigger scale and more funds, it would be interesting to probe a correlation between different areas of English proficiency and EE.

Some suggestions for future research in the field of SLA might include a more comprehensive study of extramural English in Vietnam. It would be interesting to conduct a more comprehensive study to compare the relationship between EE and English proficiency of students from big cities and those from remote and rural areas. Therefore, it would be possible and more reliable to make a generalization to the whole population when having a bigger and more diverse sample. Moreover, it would be beneficial for teaching practices and might be practical for English teaching policies when knowing about the differences in students' English proficiency between the two areas.

Additionally, EE time was asked at the present time, not in the past or throughout their lives. A suggestion for future research is that more comprehensive questionnaires, where questions

about participants' history with EE are included or a follow-up interview with participants to gain an insight into their EE habits and frequency would be beneficial.

It would also be interesting to conduct research on younger students and map out EE for young learners by studying how EE develops and affects their English proficiency over a certain period of time and track changes/ improvements in their English proficiency. Since this analysis could not be made in the scope of this study, it would be valuable to investigate this relationship among the younger learners.

6 Conclusion

Various studies have been conducted on the relationship between EE input and English proficiency in different contexts, such as in Sweden, Denmark, the Netherlands, and Norway. Those studies have yielded a positive and significant correlation between exposure to EE input and English proficiency. Vietnam is known as one of the countries having the fastest growing Internet in Southeast Asia, meaning that the proportion of the population with access to it has been growing very fast. Moreover, it is common for young people to have digital devices connected to the Internet (c.f. 2.4.1). To my knowledge, there are no such studies that have studied the relationship between EE and Vietnamese students' English proficiency per se in the Vietnam context. Therefore, the current study took the starting points from the studies of Sundqvist (2009), Busby (2015), and Jakobsson (2018), which have been carried out in different contexts, and have revealed a significant relationship between EE input and English proficiency.

The present research recruited 245 undergraduate participants aged 18 to 25 in a public university in Vietnam to participate in a quantitative study, which used a survey including a questionnaire and a Vocabulary Levels Test to investigate whether there was a significant relationship between the two variables mentioned above in the Vietnam context. The questionnaire focused on asking about the participants' educational background, English knowledge, EE, and motivation for learning English. The Vocabulary Levels Test, which was used as a proxy of English proficiency to measure the participants' receptive vocabulary size, was the updated version from Webb et al. (2017).

In conclusion, the present study found that the participants did have access to and spent quite a lot of time on digital devices, where the participants might have had a lot of opportunities to have exposure to EE. However, it turned out that their activities did not necessarily involve a lot of English compared to findings in previous studies because most of those activities took place in the Vietnamese language. Moreover, the participants in the current study started using digital devices quite late compared to participants in previous research. Thus, in terms of exposure to EE, the participants' childhood may have been quite different from those in previously studied contexts, such as Norway, Sweden, the Netherlands, and Denmark, where people start to have extensive access to EE at a very young age. This would mean that starting

using digital devices late might have had an important effect on the participants' English proficiency.

Moreover, the results from the backward linear regression in the present study revealed that reading in English was the only predictor of the participants' English proficiency. The current study showed no significant correlations between other extramural activities and the participants' VLT scores. In addition, the inside-school input was found to have a strong link to the participants' vocabulary levels based on the participants' self-reports.

Additionally, the participants of the current study were found to have lower scores at the VLT than those from previous studies. For example, Norwegian participants from Busby (2021) achieved much higher scores at the VLT than the participants of the current study, which indicates that the participants in the current study have a smaller vocabulary size than Norwegian participants from Busby's study.

Furthermore, the study found a significant correlation between the residential areas where the participants grew up and the participants' English proficiency. There was only a significant difference between the participants from the two specific residential areas found in using social media out of the 5 EE activities investigated in this study in terms of EE. However, significant differences between the rural participants and the urban participants at their VLT were found in the current study. Specifically, the urban participants had a better performance at most levels of the VLT than the rural participants.

Also, parents from rural areas were unexpectedly found to have higher education than urban parents. However, the educational levels of parents were found not to connect with the participants' English proficiency.

The results of the study mostly contrast with previous research on EE exposure's effects on English language proficiency, with some exceptions. Firstly, as mentioned, reading in English was found to correlate significantly with the VLT scores, which is in line with the previous studies. Secondly, significant differences were found between the urban participants and the rural ones regarding English proficiency, which also fit previous studies.

As mentioned, to my knowledge, this is the first study that has shed some light on the relationship between EE and English proficiency of native Vietnamese students in Vietnam. The biggest contribution of this study is to discover that EE exposure did not have a strong influence on Vietnamese students' English proficiency in the Vietnam context compared to European contexts. This essential difference might be due to the different volumes and quality of EE exposure in different contexts.

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8 Appendices

8.1 Appendix 1 – Questionnaires

SELF-REPORT QUESTIONNAIRES

Background information

1. Bạn bao nhiêu tuổi?

2. Giới tính của bạn là gì?

Nam

Nữ

Không thích đề cập

3. Bạn học ngành gì?

4. Tiếng việt có phải là ngôn ngữ mẹ đẻ/ đầu tiên của bạn hay không? *(ngôn ngữ mà bạn được tiếp xúc từ lúc sinh ra hoặc rất sớm sau đó.)*

Đúng, tiếng Việt là ngôn ngữ đầu tiên duy nhất của tôi

Đúng, nhưng tôi còn có (các) ngôn ngữ đầu tiên khác nữa

Không, tiếng Việt không phải là ngôn ngữ đầu tiên của tôi

5. Bạn đến từ vùng nào ở Việt Nam?

Vùng thành thị

Vùng nông thôn

Khác: *(hãy nêu chi tiết)*

6. Trình độ giáo dục cao nhất của bố bạn là gì?

Trung học cơ sở (đến hết lớp 9)

Trung học phổ thông (đến hết lớp 12)

Cử nhân

Thạc sĩ

Tiến sĩ

Không biết

7. Trình độ giáo dục cao nhất của mẹ bạn là gì?

Trung học cơ sở (đến hết lớp 9)

Trung học phổ thông (đến hết lớp 12)

Cử nhân

Thạc sĩ

Tiến sĩ

Không biết

8. Bạn đã học tiếng Anh ở trường được bao nhiêu năm?

Ít hơn 8 năm

8-9 năm

10-11 năm

12-13 năm

Nhiều hơn 13 năm

9. Bạn dành tổng bao nhiêu thời gian vào việc học tiếng Anh mỗi ngày? *(tổng thời gian này bao gồm thời gian học tiếng Anh ở trường, ngoài trường học, và bất cứ thời gian nào mà bạn dành học tiếng Anh một cách có ý thức.)*

Ít hơn 1 giờ

1 giờ

2 hours

3 hours

Nhiều hơn 3 giờ: *(hãy đưa ra một con số ước tính)*

10. Bạn dành trung bình bao nhiêu thời gian vào việc viết tiếng Anh mỗi tuần? *(tổng thời gian này bao gồm thời gian viết bài tập, viết cho bạn bè, và bất cứ hoạt động nào mà bạn viết bằng tiếng Anh.)*

Ít hơn 1 giờ

Từ 1 đến 3 giờ

Từ 3 đến 5 giờ

Từ 5 đến 7 giờ

Nhiều hơn 7 giờ: *(hãy đưa ra một con số ước tính)*

11. Ai là người bạn nói tiếng Anh thường xuyên với và tần suất như thế nào?

	Hàng ngày	Hàng tuần	Hàng tháng	Không bao giờ
Bạn bè				
Gia đình				
Giáo viên				
Mọi người qua game				
Bản thân				
Khác: *(hãy làm rõ)*				

12. Dựa vào bảng đánh giá từ 1-10, bạn nghĩ trình độ tiếng Anh của bạn đang ở mức bao nhiêu?

1 = Rất cơ bản ……..10 = Rất thành thạo

1 = Rất cơ bản

2 = Cơ bản

3 = Dưới trung bình

4 = Trung bình

5 = Trên trung bình

6 = Khá

7 = Khá thành thạo

8 = Rất tốt

9 = Thành thạo

10 = Rất thành thạo

13. Kĩ năng tiếng Anh nào bạn nghĩ bạn tốt nhất?

Nói

Nghe hiểu

Đọc hiểu

Viết

14. Hãy cho ý kiến đối với các câu dưới đây

	Rất đúng	Hơi đúng	Không có ý kiến gì	Hơi sai	Không đúng
Tôi cảm thấy có ý nghĩa thành tựu khi tôi có thể nói chuyện được bằng tiếng Anh vì vậy nó khiến tôi có động lực học tiếng Anh.					
Tiếng Anh sẽ giúp tôi trong sự nghiệp tương lai.					
Tôi thấy tiếng Anh rất khó để học.					

Tôi rất tự tin khi nói chuyện bằng tiếng Anh.					
Tôi sợ mắc lỗi khi nói chuyện bằng tiếng Anh.					
Tiếng Anh là một phần quan trọng trong chương trình học ở trường.					

15. Bạn tin rằng bạn học được tiếng Anh từ đâu nhiều nhất?

Hầu như ở trường học

Cả ở trong trường và ngoài trường

Hầu như ở ngoài trường

16. Phương pháp nào bạn nghĩ hiệu quả nhất trong việc học tiếng Anh của bạn? *(Bạn có thể chọn nhiều đáp án nếu chúng áp dụng đối với trường hợp của bạn.)*

Qua sách vở

Ở lớp học tiếng Anh ở trường

Ở lớp học tiếng Anh ở trung tâm tiếng Anh

Giao tiếp với bạn bè

Chơi game

Nghe nhạc tiếng Anh

Đọc sách tiếng Anh

Xem phim tiếng Anh

Chat với người nước ngoài qua mạng

Dùng mạng xã hội như Facebook, Instagram,..

Đọc các tài liệu tiếng Anh

Khác: *(hãy nêu rõ)*

Sử dụng các thiết bị điện tử và tiếp xúc với mạng Internet

17. Bạn bắt đầu sử dụng các thiết bị điện tử từ lúc mấy tuổi?

18. Trung bình bạn dành bao nhiêu giờ sử dụng các thiết bị điện tử hàng ngày?

Ít hơn 3 giờ

Từ 3 đến 5 giờ

Từ 5 đến 7 giờ

Nhiều hơn 7 giờ: *(hãy nếu ra một con số ước tính:...)*

19. Ngôn ngữ nào bạn thường sử dụng trên các thiết bị điên tử?

Tiếng Việt

Tiếng Anh

Khác: *(hãy chỉ rõ)*

Chơi game

20. Bạn thường chơi game nào?

Fortnite

Minecraft

Call of Duty

Tetri

Pokemon Go

Wizards Unite

Candy Crush

LOL

World of Warcraft

FIFA

Khác: *(hãy chỉ rõ)*

21. Trung bình bạn dành tổng bao nhiều giờ vào chơi games mỗi tuần?

Ít hơn 1 giờ

Từ 1 đến 3 giờ

Từ 3 đến 5 giờ

Nhiều hơn 7 giờ: *(hãy đưa ra một con số ước tính)*

22. Tần suất bạn xem livstream games như thế nào?

Hàng ngày

Hàng tuần

Hàng tháng

Không bao giờ

23. Ngôn ngữ nào bạn dùng trên game?

Tiếng Anh

Tiếng Việt

Khác: *(hãy chỉ rõ)*

24. Bạn có nghĩ rằng chơi game giúp bạn học tiếng Anh không?

Có, rất nhiều

Có, một phần nào đó

Không, không tý nào cả

Nghe nhạc

25. Bạn dành tổng trung bình bao nhiêu giờ vào nghe nhạc tiếng Anh mỗi tuần?

Ít hơn 1 giờ

Từ 1 đến 3 giờ

Từ 3 đến 5 giờ

Từ 5 đến 7 giờ

Nhiều hơn 7 giờ*: (hãy chỉ ra con số ước tính)*

26. Bạn có nghĩ rằng nghe nhạc giúp bạn học tiếng Anh không?

Có, rất nhiều

Có, một phần nào đó

Không, không tý nào cả

Sử dụng mạng xã hội

27. Bạn dành tổng trung bình bao nhiêu giờ vào việc dùng mạng xã hội mỗi tuần?

Ít hơn 1 giờ

Từ 1 đến 3 giờ

Từ 3 đến 5 giờ

Từ 5 đến 7 giờ

Nhiều hơn 7 giờ: *(hãy chỉ ra con số ước tính)*

28. Ngôn ngữ nào bạn thường dùng nhất trên mạng xã hội?

Tiếng Anh

Tiếng Việt

Khác: *(hãy chỉ rõ)*

29. Bạn có nghĩ rằng nói chuyện với người nước ngoài trên mạng giúp bạn học tiếng Anh không?

Có, rất nhiều

Có, một phần nào đó

Không, không tý nào cả

Du lịch nước ngoài

30. a) Bạn đã từng thăm/ đến/ sống ở bất cứ nước nào ngoài Việt Nam chưa?

Rồi

Chưa

31. Nếu rồi, (những) nước nào?

Và với mục đích gì: *(du lịch, chuyến đi với trường, trao đổi văn hóa,…)*

Đi trong bao lâu?

Ít hơn 3 tháng

Từ 3 đến 12 tháng

Nhiều hơn 12 tháng

Đọc tài liệu bằng tiếng Anh

32. Bạn có thường xuyên đọc bằng tiếng Anh không và bạn đọc những gì? *(tất cả các nguồn được liệt kê dưới đây đề cập tới cả bản mềm và bản cứng bằng tiếng Anh.)*

	Hàng ngày	Hàng tuần	Hàng tháng	Hiếm khi	Không bao giờ
Sách					
Báo					
Tạp chí					
Tài liệu đọc ở trường					
Các bài đăng trên mạng xã hội					
Các loại báo khác					
Khác: (*hãy chỉ rõ)*					

33. Bạn dành tổng trung bình bao nhiêu giờ vào việc đọc bằng tiếng Anh mỗi tuần?

Ít hơn 1 giờ

Từ 1 đến 3 giờ

Từ 3 đến 5 giờ

Từ 5 đến 7 giờ

Nhiều hơn 7 giờ: *(hãy chỉ ra con số ước tính)*

34. Bạn có nghĩ rằng đọc các nguồn đọc online giúp bạn học tiếng Anh không?

Có, rất nhiều

Có, một phần nào đó

Không, không tý nào cả

Xem TV và phim ảnh

35. Chương trình TV/ phim nào bạn thường xem và tần suất như thế nào?

	Hàng ngày	Hàng tuần	Hàng tháng	Không bao giờ
Tin tức				
Chương trình truyền hình thực tế				
Các bài nói chính trị				
Các chương trình nói chuyện				
Các seri phim				
Phim điện ảnh				
Khác: *(hãy chỉ rõ)*				

36. Bạn dành tổng trung bình bao nhiêu giờ vào xem các chương trình/ phim ảnh tiếng Anh hàng tuần?

Ít hơn 1 giờ

Từ 1 đến 3 giờ

Từ 3 đến 5 giờ

Từ 5 đến 7 giờ

Nhiều hơn 7 giờ: *(hãy chỉ ra con số ước tính)*

37. Bạn có thường xuyên dựa vào phụ đề khi xem các chương trình TV/ phim ảnh?

Luôn luôn

Thường xuyên

Thỉnh thoảng

Không bao giờ

38. Nếu bạn được chọn, ngôn ngữ nào bạn thích được phụ đề?

Tiếng Anh

Tiếng Việt

Khác: *(hãy chỉ rõ)*

39. Bạn có nghĩ rằng xem các chương trình TV/ phim ảnh giúp bạn học tiếng Anh không?

Có, rất nhiều

Có, một phần nào đó

Không, không tý nào cả

8.2 Appendix 2 – Consent form

Bạn có hứng thú tham gia vào dự án nghiên cứu "ảnh hưởng của các nguồn Tiếng Anh ngoài trường học tới trình độ tiếng Anh của sinh viên ở Việt Nam không?"

Đây là câu hỏi cho việc tham gia vào một dự án nghiên cứu với mục đích chính là để hiểu rõ hơn về những ảnh hưởng của các nguồn tiếng Anh ngoài trường học đối với trình độ thông thạo tiếng Anh của người học ở Việt Nam. Sau đây, chúng tôi sẽ cung cấp cho bạn đầy đủ thông tin về mục đích của dự án cũng như những gì sẽ liên quan đến sự tham gia của bạn vào dự án.

Mục đích của dự án

Đã có rất nhiều nghiên cứu được thực hiện về các ảnh hưởng của các nguồn tiếng Anh ngoài trường học vào trình độ của người học tiếng Anh ở các nước phát triển như Thụy Điển, Nauy. Tuy nhiên, có rất ít nghiên cứu về chủ đề này ở Việt nam. Vì vậy, nghiên cứu này được thiết kế nhằm hiểu rõ hơn về những ảnh hưởng này vào trình độ thông thạo tiếng Anh của sinh viên Việt Nam. Nghiên cứu tập trung tìm hiểu về nền tảng tiếng Anh của sinh viên Việt Nam và vốn từ vựng bằng việc sử dụng các câu hỏi và một bài kiểm tra từ vựng. Hơn nữa, nghiên cứu này cũng muốn tìm hiểu liệu các nguồn tiếng Anh ngoài trường học có mối liên hệ gì với trình độ thông thạo tiếng Anh của sinh viên Việt Nam không. Số liệu sẽ được thu thập online từ sinh viên Việt Nam bản ngữ vào năm học 2020-2021.

Nghiên cứu hiện tại là dự án luận văn Thạc sĩ của tôi như là một nghiên cứu độc lập về việc tiếp nhận ngôn ngữ thứ hai.

Ai là người chịu trách nhiệm cho dự án nghiên cứu này?
Khoa Ngôn ngữ và Văn học, Viện Nhân văn của Đại học Khoa học và Công nghệ Na Uy (NTNU) là cơ quan chịu trách nhiệm cho dự án.

Tại sao bạn lại được hỏi tham gia vào dự án này?
Trong dự án nghiên cứu này, đối tượng nghiên cứu nhắm đến của tôi là sinh viên đại học. Đó là lý do tại sao tôi hỏi bạn tham gia vào cuộc khảo sát này.

Việc tham gia vào dự án liên quan gì đến bạn?

Là người tham gia vào dự án, bạn sẽ tham gia vào một bài khảo sát online khoảng 45 phút. Bài khảo sát bao gồm các câu hỏi về nền tảng tiếng Anh của bạn và một bài kiểm tra từ vựng tiếng Anh. Câu trả lời của bạn sẽ được lưu lại dưới dạng điện tử.

Việc tham gia vào dự án là tự nguyện

Việc tham gia vào dự án là tự nguyện. Nếu bạn chọn tham gia vào dự án nhưng sau đó bạn muốn rút khỏi dự án bạn hoàn toàn có thể làm điều đó bất cứ lúc nào mà không cần đưa ra lí do. Tất cả thông tin về bạn sẽ được ẩn danh. Vì vậy sẽ không có bất cứ hậu quả hay ràng buộc nào cho bạn nếu bạn chọn không tham gia vào dự án hay quyết định rút khỏi dự án sau đó.

Quyền riêng tư – Cách chúng tôi lưu trữ và sử dụng thông tin cá nhân của bạn

Chúng tôi sẽ chỉ sử dụng dữ liệu cá nhân của bạn cho mục đích được nêu ra trong thư này. Chúng tôi sẽ xử lí dữ liệu cá nhận của bạn một cách bí mật và phù hợp với luật bảo vệ dữ liệu (quy định chung về bảo vệ dữ liệu và Đạo luật về dữ liệu cá nhân).

Tôi là Phan Thị Kim Dung – tác giả của nghiên cứu này kết hợp với Khoa Ngôn ngữ và Văn học, Viện Nhân văn của Đại học Khoa học và Công nghệ Na Uy (NTNU) chịu trách nhiệm cho dự án này sẽ tiếp cận với dữ liệu cá nhân.

Tuổi, giới tính, trình độ giáo dục của bố mẹ, và kiến thức nền về tiếng Anh của bạn sẽ được sử dụng để phân tích dữ liệu trong nghiên cứu này dưới dạng tổng hợp.

Điều gì sẽ xảy ra với dữ liệu cá nhân của bạn ở cuối dự án này?

Dự án được lên kế hoạch đến cuối tháng 12 năm 2021. Sau khi nghiên cứu kết thúc, tất cả dữ liệu từ cuộc khảo sát này sẽ bị hủy.

Quyền lợi của bạn

Miễn là bạn có thể được xác định trong dữ liệu đã thu thập, bạn có quyền:

- truy cập dữ liệu cá nhân đang được xử lý về bạn
- yêu cầu xóa dữ liệu cá nhân của bạn
- yêu cầu dữ liệu cá nhân không chính xác về bạn được sửa chữa/cải chính
- nhận một bản sao dữ liệu cá nhân của bạn (khả năng di chuyển dữ liệu), và
- gửi khiếu nại đến Nhân viên bảo vệ dữ liệu hoặc Cơ quan bảo vệ dữ liệu Na Uy về việc xử lý dữ liệu cá nhân của bạn

Điều gì cho phép chúng tôi xử lí dữ liệu cá nhân của bạn?

Chúng tôi sẽ xử lí dữ liệu cá nhân của bạn dựa vào sự đồng ý của bạn.

Dựa trên thỏa thuận với Khoa Ngôn ngữ và Văn học, Viện Nhân văn của Đại học Khoa học và Công nghệ Na Uy (NTNU), NSD - Trung tâm Dữ liệu Nghiên cứu Na Uy AS đã đánh giá rằng việc xử lý dữ liệu cá nhân trong dự án này là phù hợp với luật bảo vệ dữ liệu.

Bạn có thể tìm hiểu nhiều hơn về dự án ở đâu?

Nếu bạn có bất cứ câu hỏi nào về dự án, hoặc muốn thực hiện quyền của bạn, hãy liên hệ:
Khoa Ngôn ngữ và Văn học, Viện Nhân văn của Đại học Khoa học và Công nghệ Na Uy (NTNU) thông qua email của tôi: tkphan@stud.ntnu.no hoặc email của người hướng dẫn tôi: anne.j.dahl@ntnu.no
Nhân viên bảo vệ dữ liệu của chúng tôi: Thomas Helgesen, qua email: thomas.helgesen@ntnu.no hoặc qua điện thoại di động: +47 93079038

NSD - Trung tâm Nghiên cứu Dữ liệu AS của Na Uy, qua email: (personverntjenester@nsd.no) hoặc qua điện thoại: +47 55 58 21 17

Trân trọng./

Phan Thi Kim Dung

Đồng ý tham gia dự án

Tôi đã nhận và hiểu thông tin về dự án "Ảnh hưởng của các nguồn tiếng Anh ngoài trường học đến trình độ tiếng Anh của sinh viên ở Việt Nam" và có cơ hội đặt câu hỏi. Tôi đồng ý:

• tham gia vào nghiên cứu này

Tôi đồng ý cho phép dữ liệu cá nhân của tôi được xử lý cho đến khi kết thúc dự án, khoảng ngày 31 tháng 12 năm 2021

Bằng cách nhấp vào "Tiếp theo", bạn đồng ý tham gia vào nghiên cứu.

8.3 Appendix 3 – Vocabulary Levels Test

This is a test that looks at how well you know useful English words. Put a check (✓) under the word that goes with each meaning. Here is an example.

	game	island	mouth	movie	song	yard
Land with water all around it						
Part of your body used for eating and						
Talking piece of music						

	game	island	mouth	movie	song	yard
Land with water all around it		✓				
Part of your body used for eating and			✓			
Talking piece of music					✓	

1,000 Word Level

	boy	rent	report	size	station	thing
How big or small something is						
Place buses and trains go to						
Young man						

	ear	gold	lake	letter	office	people
Information sent to people						
Place for working						
Men and women						

	fellow	hat	ice	joke	light	system
Funny story man or boy						
Something worn on your head						
Funny story man or boy						

	date	forest	mistake	news	record	shop
Latest information						
Something that is not right						
Place with many trees						

	bar	conversation	neighbor	rain	rubbish	shirt
Person who lives nearby						
Things that are thrown away						
Type of clothing						

	continue	cook	phone	pull	sail	share
Hold and move something toward yourself						
Keep happening						
Use together with others						

	enter	finish	happen	own	sing	worry
End						
Go inside						
Have something that is yours						

	arrive	collect	consider	glance	need	pack
Look quickly at something						
Reach the place you are going						
Think about something						

	affordable	beautiful	boring	dry	rough	tall
Higher than normal						
Not flat						
Not interesting						

	closed	dirty	empty	musical	orange	sad
Having nothing						
Not clean						
Unhappy						

2,000 Word Level

	capital	career	commitee	exam	fence	option
Choice						
Job						
Test						

	guard	lesson	library	license	monkey	soup
Food made with lots of water						
Person who watches for danger						
Place where many books are kept						

	brake	crown	hero	language	mission	tale
Hat worn by a king or queen						
Job						
Things that stops a car						

	affair	carrot	damage	desert	shelter	thief
Person who steals						
Place that gives protection						
Place with little rain						

	advice	hobby	industry	soil	steak	storm
Bad weather						
Earth						
Things that you often enjoy doing						

	burst	cheat	direct	operate	presume	wander
Believe something is true						
Break open						
Make something work						

	develop	identify	improve	possess	provide	sew
Give						
Have						
Make better						

	complain	increase	pray	produce	recognize	whip
Get larger						
Know and remember						
make						

	curious	defensive	energetic	nervous	various	wicked
Different kind of things						
Very bad						
Wanting to know						

	advanced	cruel	lone	stiff	typical	upset
At a high level						
Not kind						
single						

3,000 Word Level

	colleague	fate	fee	hint	status	talent
Ability or skill						
Clue						
Person you work with						

	circuit	clinic	format	origin	peak	routine
Place where you can see a doctor						
Top						
What you usually do each day						

	agency	heel	pavement	penalty	principal	youth
Back of your foot						
Person in charge of a school						
punishment						

	element	jail	joint	objective	portrait	variety
Goal						
Picture						
Place where criminals are kept						

	defeat	infant	nuclear	outrage	prospect	rival
Loss						
Person you oppose						
Small child						

	coincide	derive	devote	permit	publish	regret
Feel bad about doing something						
Give all your time and attention						
Happen at the same time						

	civilize	discharge	graduate	imply	merge	perceive
Join						
Release						
suggest						

	assault	bargain	complete	dedicate	nominate	restrain
Attack						
Hold back						
Try to win						

	fundamental	humorous	interior	numerous	prompt	religious
Basic						
Many						
On time						

	legislative	mechanic	mortal	random	rear	reluctant
Back of something						
Can die						
Without order						

4,000 Word Level

	auction	bullet	fever	flock	outlet	skull
Group of birds						
High body temperature						
Sale where people place bids						

	archive	ash	mat	moisture	physics	tile
Place where old books are kept						
Powder left after something burns						
Science subject						

	pioneer	dictionary	immigration	petition	romance	thigh
Book with information given for each word						
First person to so something						
Paper that people sign						

	acid	cafe	deadline	deficiency	texture	thesis
Lack						
Place for buying an drinking coffee						
Time limit						

	avenue	brass	departure	hood	hut	premier
Cover for your head						
Small house						
Type of metal						

	appall	invade	mutter	refine	roast	unveil
Cook over fire						
Enter by force						
Make pure						

	aspire	exert	gossip	minimize	poke	postpone
Make smaller						
Push with your finger						
Try to reach a goal						

	adhere	fracture	originate	peel	sparkle	terminate
Do what is expected						
End						
Give off small flashes of light						

	amateur	arrogant	cognitive	infinite	judicial	monetary
Having no limits						
Not professional						
Overly proud						

	delicate	dull	miserable	noble	peculiar	refreshing
Breaks easily						
Unselfish and morally good						
Very unhappy						

5,000 Word Level

	calf	epidemic	foam	landmark	token	trumpet
Illness spread quickly that affects many people						
Many bubbles						
Young cow						

	comb	ivory	pants	rainbow	vegetarian	zip
Containing no meat						
Hard white substance						
Tool for styling hair						

	analogy	captive	remainder	renovation	ribbon	vest
Comparison between two things						
Person kept somewhere unwillingly						
What is left						

	butcher	chalk	grape	ornament	pier	wallet
Container for money						
Person who cuts and sells meat						
Place for boats to dock						

	ammunition	crab	dusk	nucleus	revenge	spectator
Beginning of night						
Center						
Person who watches						

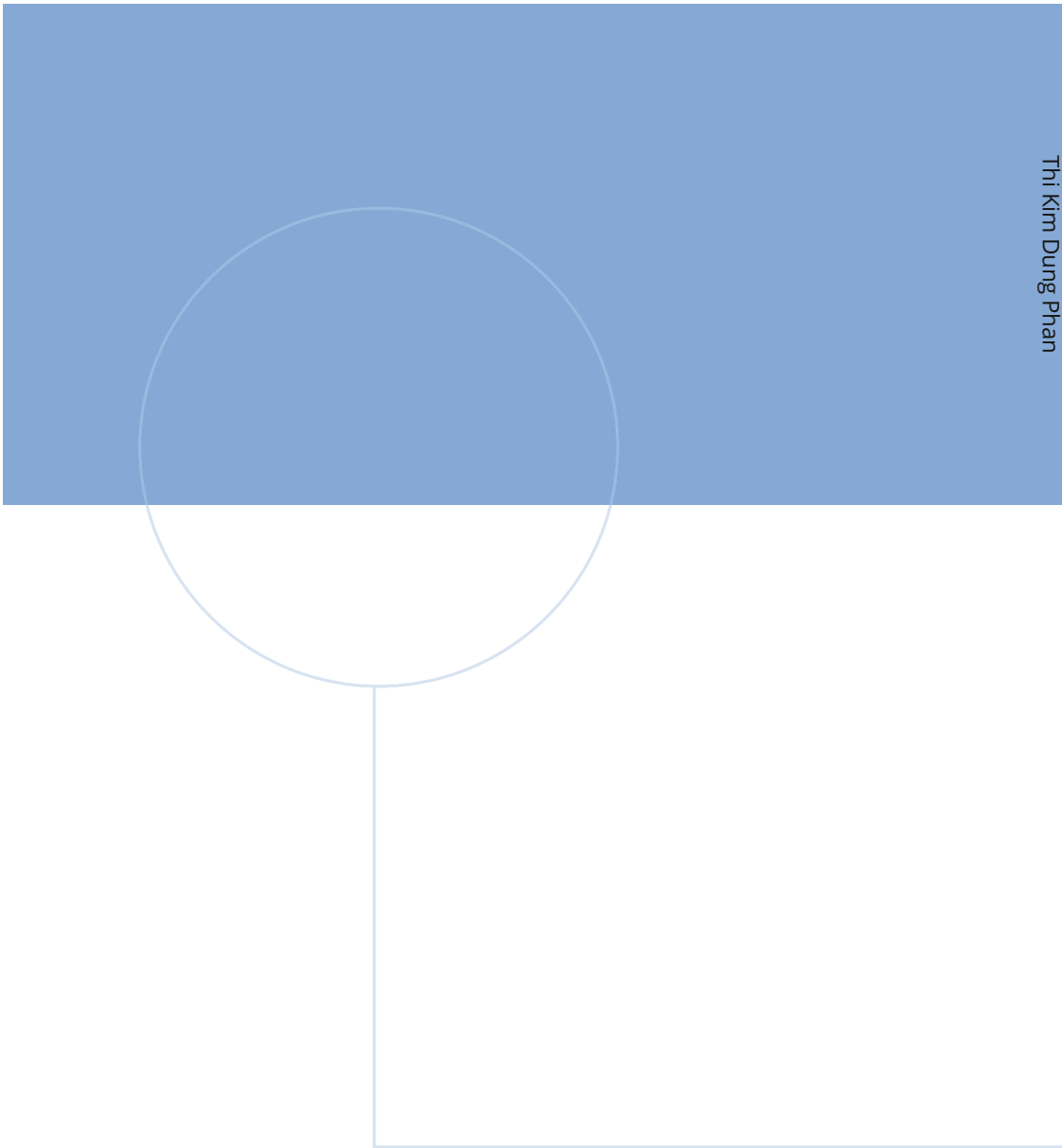
	abolish	apprehend	chuckle	erode	replicate	segregate
End						
Keep apart						
Slowly make smaller						

	duplicate	emigrate	hurl	perch	revolt	swirl
Copy						
Fight violently against						
Sit in a high place						

	amplify	evaporate	grunt	mitigate	recollect	tow
Disappear						
Make larger						
Remember						

	blunt	fabulous	horrified	numb	singular	volatile
Not sharp						
Without feeling						
wonderful						

	brisk	extinct	fragrant	splendid	tolerant	trivial
Fast						
Having no living members						
Of little importance						



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