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List of abbreviations

AWL	Academic Word List
CLIL	Content and Language Integrated Learning
EE	Extramural English
EEQ	Extramural English Questionnaire
EF	Education First
EFL	English as a Foreign Language
ELF	English as a Lingua Franca
ELL	English Language Learning
ELT	English Language Teaching
EPI	English Proficiency Index
ESL	English as a Second Language
INEC	National Institute of Statistics and Census
L1	First Language
L2	Second Language
PVLT	Productive Vocabulary Levels Test
SES	Socioeconomic Status
SLA	Second Language Acquisition
UWL	University Word List
VLT	Vocabulary Levels Test

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1. Introduction

In an increasingly globalized and interconnected world defined by digital immersion, the field of language acquisition is radically changing. Today, learners encounter English not only within their classroom walls but also in their social media interactions, music lyrics, favorite TV shows, video games, and plenty of other media, leading to increased exposure to the language in their leisure time. This phenomenon, known as extramural English, encompasses the vast array of English-language media students consume in their free time. In the Costa Rican context, as in many other parts of the world, the influence of English as the world's lingua franca in daily life is evident.

In light of this, it is crucial to understand the nature and implications of extramural English exposure, especially in relation to vocabulary learning. While many studies have shed light on the positive impact of extramural English activities on language acquisition, particularly in young learners (e.g., Sundqvist 2009; Kuppens 2010; Sylvén & Sundqvist 2012, 2014; Sundqvist & Wikström 2015; Sundqvist & Sylvén 2016; Schwarz 2020), there is a noticeable dearth of literature on the vocabulary benefits for adult language learners. This gap highlights the necessity for localized empirical studies to fully understand the complexities of vocabulary acquisition processes among adult learners. Motivated by this gap in the research, this thesis seeks to provide some insight into the extramural English activities among adult English language learners from a public university in Costa Rica and how these impact their vocabulary acquisition.

Through a quantitative research approach encompassing a questionnaire and two vocabulary tests, namely the Vocabulary Levels Test for receptive vocabulary (Schmitt, Schmitt, & Clapham 2001) and the Productive Vocabulary Levels Test for productive vocabulary (Laufer & Nation 1999), this study aims to delineate the complex interplay between extramural English engagement and the vocabulary development of these students. Furthermore, the investigation will extend to socioeconomic variables, gender, and age of the participants, factors intricately linked to language acquisition.

With this in mind, this thesis aims to achieve several objectives: (1) to determine the motivations behind students' engagement in extramural English activities; (2) to quantify the time spent on these activities and identify the most common ones; (3) to examine the

influence of gender, age, and educational background (both of the learners and their parents) on vocabulary knowledge; and (4) to evaluate learners' passive and active vocabulary knowledge to gain insights into their vocabulary size. This information aims to assist the English teachers at the language institute of a public university, where this study was conducted, by providing a comprehensive report on their students' vocabulary knowledge and engagement with extramural activities. Equipped with this insight, teachers can adapt their lesson plans and explore the integration of supplementary extramural activities to benefit their students.

This thesis is structured into three main sections. The first section begins with a relevant literature review in Chapter 2, where the theoretical considerations of second language acquisition and the main key concepts are discussed. After that, Chapter 3 addresses what entails knowing a word, different units of word counting, factors that affect vocabulary learning, and how vocabulary knowledge is measured. In addition, Chapter 4 deals with the topic of extramural English, its definition and importance for vocabulary learning, as well as the different activities available that learners can take advantage of. Chapter 5 concludes the literature review by discussing the research context of this thesis, namely the importance of the English language in Latin America, with a special focus on education policies in different countries that have resulted in political and educational challenges in the area. After that, the focus turns to Costa Rica, where insight is provided into the evolution of English teaching in the country as this field was shaped by worldwide economic and political forces.

The second section of this thesis delves into the methodology of the study in Chapter 6. This chapter includes a detailed description of the study sample, an exploration of how data was collected, and successive data processing methods. Finally, section three (Chapter 7) presents the analysis and discussion of the study results in the context of previous studies on the topic before addressing the limitations of the study.

2. Second language acquisition

Understanding the fundamentals of language acquisition and the pertinent terminology used in the area is necessary to comprehend the significance of vocabulary learning. This chapter begins by examining the main concepts and theories used in second language acquisition, which are relevant to this thesis. Section 2.2 will discuss how consciousness influences language learning and lastly, section 2.3 will tap into individual differences among learners that can also determine language learning success like gender and age, extramural language exposure, bilingual education, and students' socioeconomic status.

2.1. Key concepts

In the context of language learning, the term 'Second Language Acquisition' (henceforth SLA) frequently appears. This term, however, can sometimes lead to confusion because it can describe two different purposes. Essentially, linguists tend to use the term 'SLA' to refer to the study of how people learn specifically a second language (L2). However, Ellis and Barkhuizen (2005: 3) point out that SLA is an umbrella term that encompasses the learning of not only a second language but also a third or a fourth one after the first language (L1), or mother tongue, has already been acquired. Therefore, in alignment with other scholars (Sundqvist 2009; Berns 2007; Ellis & Barkhuizen 2005; Sargsyan & Kurghinyan 2016), in this thesis, the terms 'L2 acquisition' or 'SLA' will be used to denote the learning of any language, whether it be a second, third, or fourth language.

Moreover, when it comes to teaching English as a target language, the terms 'English as a Foreign Language' (EFL) and English as a second language (ESL) are often used interchangeably. As the terminology implies, EFL primarily pertains to the instruction of English within a formal classroom setting. In contrast, ESL involves the teaching of English to individuals with diverse L1s other than English, typically in contexts where English serves as the country's main language, such as in countries like Australia, the UK, or the US, where English is widely spoken in community settings, schools, and governmental institutions (Sundqvist 2009: 10). On the other hand, the rapid pace at which English is now acquired, largely driven by technological advancements and media exposure, has led to its widespread influence on society. This global reach has positioned English as the world's main lingua

franca, blurring the traditional distinction between English as a second language and English as a foreign language (Berns 2007; Sargsyan & Kurghinyan 2016). The cultural implications of this phenomenon have sparked debates on the use of English as a lingua franca (ELF) and its implications for understanding language-culture relationships. In essence, one can argue that due to the proliferation of ELF, English no longer holds the status of a foreign language but is rather regarded as a second language in many countries, including Costa Rica.

Transitioning to the next concepts, specifically 'language learning' and 'language acquisition', there is also a distinction to be made since in Krashen's (1981) view, these terms refer to different kinds of learning. Firstly, he explains that language 'acquisition' is a process that occurs gradually and naturally; this means that learners are not always aware that they are acquiring a language but are just aware that they are using it to communicate. Similar to how children learn to speak, children acquire their mother tongue through interaction with their parents and immersion in their environment. It is their need to communicate that facilitates language acquisition. In short, language acquisition is characterized by the gradual development of language skills and the ability to comprehend and produce language naturally without relying on explicit knowledge of grammar rules (Krashen 1981: 10-13).

Conversely, language 'learning' involves a conscious and deliberate effort to study vocabulary, memorization of grammar rules, pronunciation, etc. It involves the use of textbooks, language courses, structured lessons, and other instructional materials. In other words, we can then say that the focus of SLA refers more to language learning through explicit instruction and deliberate practice than to language acquisition, which is a subconscious and innate process (Krashen 1981: 13). Nevertheless, although Krashen raised some valid points, his ideas have been criticized. Rod Ellis (1994: 3-4) suggested that learning can turn into acquisition, whereby learners internalize grammatical rules and, as a result, turn this process into acquisition. Krashen (1981) acknowledged that it is difficult to validate the difference between the two terms from a scientific standpoint, and in light of this, other scholars have decided to use both terms interchangeably (e.g., Horst, Cobb, and Meara 1998; Mitchell and Myles 2004; Sundqvist 2009; and N. C. Ellis 2011). Hence, language acquisition and language learning are also used interchangeably in this thesis.

2.2. The role of consciousness in SLA

In the learning of vocabulary, conscious and unconscious processes play a significant role. According to Schmidt (1990, 2001), for students to effectively produce appropriate linguistic structures and use them in context, they must have a conscious understanding of the language system they are trying to learn. This viewpoint suggests that errors occur when students are unfamiliar with the language rules, forget them, or are not attentive. For this reason, researchers use learning theories to hypothesize about the mechanisms behind vocabulary acquisition. Further, there is still debate about the correct terminology for conscious and unconscious learning, but several authors have attempted to define them. It is important to mention as well that consciousness, despite being a vague term, is an integral part of the learning process.

Building upon the understanding of conscious and unconscious processes in vocabulary learning, researchers have proposed various theories to explain language acquisition. Krashen (1981) distinguished between language learning and learning acquisition as two different processes. Nevertheless, as McLaughlin, Rossman, and McLeod (1983) point out, Krashen's perception of these two concepts is unfounded since they believe conscious and unconscious knowledge is not distinct. Instead, various researchers, including N. C. Ellis (1994, 2008), R. Ellis (2005), Hulstijn (2005), and Rebuschat (2013) discern between the terms *implicit* and *explicit* learning. Thus, Rod Ellis (2015: 193) suggests that implicit knowledge is defined as "the type of knowledge that is acquired naturally, during L1 acquisition and is needed for fluent, easy communication". A key component of implicit knowledge is unawareness, which means that it is often developed through exposure and experience with the language. Learners with significant implicit knowledge can produce accurate and fluent speech without consciously thinking about the language elements they use (like sounds, words, sentences, etc.) when speaking or writing. Explicit knowledge, on the other hand, means having a conscious awareness of specific linguistic rules, grammar structures, vocabulary, etc. by drawing on previously learned knowledge from a grammar book or which was acquired through formal instruction, in the same way, learners are able to explain these rules to other people (R. Ellis 2015).

While some researchers distinguish between explicit and implicit learning, Schmidt (1990, 2001) offers a different perspective. Schmidt suggests three other terms, the first of which is "consciousness as awareness". He argues that there is a considerable difference between 'noticing' and 'perceiving' information. For instance, whenever we read a text, we tend to block outside noises and distractions; instead, we focus on – or 'notice'– the content of our reading. We are still able to perceive background noises, but we only pay attention to them if we choose to (Schmidt 1990: 132). He also argues that noticing strongly affects second language learning when the learner converts input into intake. In detail, learning to speak a language and acquiring its linguistic features can only occur while the learner is aware of the input, which is known as "intake". Hence, to store the target language in long-term memory and improve linguistic abilities, learners must consciously pay attention to the input they receive (Schmidt 2012: 31-32).

The second term proposed by Schmidt (1990, 2001) is "consciousness as intention". He describes this as the type of learning that happens unconsciously and goes on to add that most of the vocabulary a learner acquires happens through reading, even though the primary goal of reading is enjoyment and not acquiring vocabulary. Still, paying attention to what is being read is favorable and may be necessary for this to happen. Lastly, the third term, "consciousness as attention", claims that there is no learning without attention. In this case, learners must direct their attention to those aspects of the target language they aim to learn. For example, if the goal is to learn vocabulary, then they should focus on word forms, both in spelling and pronunciation. Additionally, they should pay attention to hints in input that may help them identify meaning (Schmidt 2012: 30).

In line with Schmidt's (1990, 2001, 2012) delineation of conscious learning, Ender (2016: 537-538) introduces the terms *incidental* and *intentional* learning. The author explains that incidental learning refers to unconscious and automatic learning, where learners pick up new words during reading, listening, or speaking without a specific focus on learning them. This is a byproduct of engaging in meaningful language use or exposure, such as reading a book or listening to a podcast. On the other hand, intentional learning involves deliberate and conscious learning efforts, such as intentional memorization, explicit instruction such as in a classroom setting, or focused practice. Despite this, language learning can occur both incidentally and intentionally. It is Milton's (2009) view that while some vocabulary can be

acquired incidentally through exposure to the language in context, intentional vocabulary acquisition and the use of vocabulary learning strategies are also necessary to develop a rich and nuanced vocabulary. Moreover, Milton emphasizes that the optimal balance between the two depends on a learner's individual characteristics and goals, and while incidental learning is more natural and effective, intentional learning can help target particular words or areas of language knowledge. In their recent publication, Schmitt and Schmitt (2020) also emphasize the importance of combining the two types of vocabulary learning. According to them, while reading has been the most researched area and can provide a great deal of vocabulary knowledge, repetition is necessary to gain vocabulary as it needs to be done consistently over time.

In language learning, however, it's important to note that all of these concepts are interconnected and can overlap. Learners may acquire implicit knowledge incidentally or intentionally seek explicit knowledge. The effectiveness of these different types of knowledge, as well as the interaction between consciousness and language learning is a subject of ongoing research and debate in the field of second language acquisition.

2.3. Factors connected to language acquisition

Language learning can be influenced by numerous variables, including individual differences among learners. Therefore, in this subsection, we will explore four specific elements that are relevant to this study and may contribute to successful language acquisition among adult learners, specifically, bilingual education, leisure-time exposure to English, gender, and age, and the role of cultural capital.

2.3.1. Exposure to English in leisure time

Exposure to a foreign language takes on various forms, including listening to music and podcasts, watching TV shows, reading books and articles, and engaging in conversations with native speakers. Collentine and Freed (2004) emphasize that the quantity and quality of this exposure can significantly impact vocabulary acquisition. There is compelling evidence to suggest that some vocabulary is acquired incidentally through activities like reading, watching TV, and playing video games, as demonstrated by numerous research studies (e.g., Sundqvist 2009; Sylvén & Sundqvist 2012; González Fernández & Schmitt 2015).

One particular form of self-exposure that has garnered attention for its impact outside formal educational settings is known as 'Extramural English' (henceforth EE). Sundqvist (2009: 24) introduced this term to describe the English-related activities her Swedish teenage students engaged in outside of school. Research indicates that extramural English exposure not only influences L2 acquisition but also significantly impacts L2 proficiency. The reason behind this is that learners who participate in extramural English activities gain more opportunities for meaningful interaction and access to authentic language input, resulting in improved vocabulary, listening comprehension, and overall language development (Lam 2000; Sundqvist 2009; Sundqvist & Sylvén 2014).

Consequently, EE is advantageous for language proficiency and vocabulary acquisition in numerous studies. For instance, Kuppens (2010: 78-79) examined the incidental acquisition of English vocabulary in Dutch primary school students who had never received formal English instruction but were consistently exposed to English television, music, and computer games during their leisure time. Her findings revealed that children exposed to subtitled English programs and movies performed significantly better on oral translation tests (Dutch-English/English-Dutch). In the same way, she found that playing English games had also a positive impact on scores in the English-Dutch translation test. A similar benefit in terms of vocabulary competence was reported by Sundqvist (2009). Her study found a significant correlation between EE activities, oral, and overall vocabulary proficiency in high school students. Interestingly, she noted that this correlation was present for male participants but not for female ones, suggesting that gender-related differences in the types of EE activities may influence language proficiency since girls tend to participate in dissimilar types of EE activities compared to boys (Sundqvist 2009: 150). In Chapter 4, a more in-depth examination of extramural English will be provided, offering a comprehensive analysis of its various aspects and benefits.

2.3.2. Gender and age

Aside from social class, gender and age are important factors to consider when learning a second language. The topic of the ideal age to begin language learning has sparked debates, with conflicting perspectives among scholars, and while some authors argue that younger learners perform better than adults, others contend that adults are better L2 learners because they already possess cognitive advantages. Simply put, they have a well-developed

memory and a heightened capacity to grasp intricate linguistic structures, and therefore, they can learn a foreign language faster (e.g., Genesee 1976, 1988; Neufeld 1979; Snow 1983; Snow & Hoefnagel-Höhle 1978; Ellis, R. 1985, 2015; Flege 1987). There are, however, various hypotheses suggesting there may indeed be some age-related challenges that manifest during SLA rooted in factors like decreased brain plasticity or the impact of universal grammar. One of these hypotheses is the critical period hypothesis (Lenneberg 1967), which suggests that there is a biologically determined period during which language acquisition at native-near proficiency occurs most effectively, i.e., this time usually begins around the age of two and ends around puberty, after which learning a new language is more challenging. In spite of this, other neurological studies have found that deterioration of the brain's plasticity occurs even before puberty in some individuals, with some showing signs as early as age six (Long 1990; Singleton 2007; Vanhove 2013). Moreover, Ellis's (1994) research suggests that the reduction of brain flexibility post-puberty provides evidence supporting the idea that younger language learners perform better than adults.

In contrast, Scarcella and Higa (1982) observed the trends in short and long-term studies in SLA research and found that long-term studies leaned towards the viewpoint that learning a foreign language during childhood was more effective for achieving 'ultimate attainment'. This implies that children can reach a level of proficiency in a foreign language akin to that of native speakers. Conversely, short-term studies suggested that older learners have advantages over children in terms of speed of acquisition. This aligns with Rod Ellis's assertion (2015: 43) highlighting that, when it comes to SLA, older learners demonstrate the capability to acquire it at a faster pace than children, with the exception, perhaps, of pronunciation. One early study addressing age and rate of language acquisition is the work of Snow and Hoefnagel-Höhle (1978). The study aimed to gauge Dutch naturalistic acquisition among children, teenagers, and adults over a span of ten months. The findings unveiled that teenagers demonstrated superior performance in morphology and syntax, followed by adults and children. Pronunciation exhibited only slight differences, while grammatical disparities decreased as children caught up. This leads to the conclusion that; indeed, adults exhibit a faster learning pace than children, but older children outpace their younger counterparts.

Concerning pronunciation, Expósito Morillas (2012) notes that when it comes to learning phonology, this is the only aspect of language learning where the effects of age are more noticeable. An experiment by Cochrane (1980) on Japanese adults and children learning English, showed that adults performed better than children in a formal learning environment except for pronunciation. According to Long (1990) and Granena and Long (2013), there seems to be a critical period for the acquisition of phonology, with younger children outperforming older children and adults in the long term. They explain that the exact age at which the critical period for phonology ends is at six-year-old, and even though some short-term studies have shown that older children and adults may have an initial advantage in phonology, this advantage is short-lived as younger children eventually catch up and outperform them.

As for vocabulary acquisition, Granena and Long (2013) highlight children's additional advantage compared to adults, particularly in implicit learning. That is, they have the ability to grasp patterns of word associations in specific contexts merely through exposure to the language. However, Lichtman's (2016) research contradicts this notion and reveals that adults can recall more words than children after a brief period of instruction in a second language. To sum up, while achieving native-like pronunciation poses a challenge for adult learners, and an earlier start is undeniably beneficial, adults outperform children in other areas, particularly in explicit learning. As argued by R. Ellis (2015), older students possess analytical skills which they are able to consciously apply in terms of different study strategies that help them better retain grammar and vocabulary. Besides, adult learners possess the advantage of drawing on their L1 to discern the aspects of pragmatics that require attention in their new language, a skill not yet developed in children (Kasper & Schmidt 1996).

The significance of gender has been a focal point in language learning research, particularly in the context of lexical proficiency. Despite a prevailing tendency in many studies concluding that females tend to outperform males, Saville-Troike (2005: 84) stresses that this is only a social construct mirroring cultural biases and adds that in many Western cultures, there is a widespread notion that females excel as language learners compared to males. Although there are indeed some gender differences in language acquisition, the results are mixed. For instance, Burman, Bitan, and Booth (2008) found that females outperformed males and tended to start speaking earlier, using longer sentences, and with a

richer vocabulary. Farhady (1982), on the other hand, revealed that women surpassed males in reading and spelling examinations where the aim was to generate words that started with a specific letter. Other scholars like Arabski and Wojtaszek (2011) found that males perform better on oral and listening exams, whereas girls excel in grammar exercises like verb conjugations or fill-in-the-blanks.

Similarly, variations in relation to hormonal changes have also been observed. A study by Kimura (1992) found enhanced motor and articulation abilities in women with elevated estrogen levels during their menstrual cycles. Rod Ellis (1994) states that even though there is strong evidence to suggest that women have a well-documented advantage in early language development, this is not always the case. He claims that higher English proficiency levels are obtained in Britain by Asian immigrant men, but this is mainly because men are more in contact with native English speakers due to their jobs, while women tend to stay at home. For this reason, Saville-Troike (2005: 126) makes clear that "[...] different attitudes and learning conditions which are experienced by males and females may advantage one group over the other for SLA in different ways in different societies, but neither group has an innate advantage."

When it comes to receptive and productive vocabulary knowledge in SLA, the findings have also yielded varied conclusions, with some scholars suggesting that outcomes may be influenced by factors such as age, L2 proficiency, and the learner's native language (Sunderland 2010). Studies by Edelenbos and Vinjé (2000), Lin and Wu (2004), and Lynn, Fergusson, and Horwood (2005) indicated that males outperformed females in vocabulary knowledge tests. Other researchers, such as Sundqvist (2009), revealed that, despite girls generally achieving higher grades, boys demonstrated superior performance in vocabulary tests.

Conversely, research by Jiménez Catalán and Terrazas Gallego (2008) found that although females scored slightly higher in the Vocabulary Levels Test (VLT), no significant gender differences were found in the mean scores of the two groups. Likewise, Canga Alonso and Arribas García (2014) observed in their study that females exhibited a productive vocabulary knowledge of 661 words, whereas males showed a vocabulary of 631 words. However, no statistically significant differences related to gender were identified. Agustín Llach and

Terrazas Gallego (2012) similarly found no distinctions across grades in the VLT test between female and male students, and Peters (2018) found that males scored slightly higher than females in the vocabulary tests, but gender did not affect the total mean scores.

In contrast, López Rúa (2006: 112) argued in her study that the higher scores achieved by girls result from a combination of cognitive, affective, social, educational, and neurological factors. Despite these variables not determining language acquisition achievement individually, she noted that they interact differently for boys and girls, leading to girls' higher verbal intelligence and higher SLA aptitude. In summary, while there is some research indicating gender-based differences in vocabulary learning, the collective evidence from these studies suggests inconclusive results, warranting further research to establish a more comprehensive understanding of potential gender-specific advantages.

2.3.3. Cultural capital

Exploring the complex aspects of gender and age differences in vocabulary learning paves the way for analyzing more extensive societal influences on educational outcomes. This includes the pivotal role of cultural capital in shaping students' academic trajectories and opportunities. The theory of cultural capital was first introduced by Bourdieu (1973, 1986) to describe the collection of attributes like skills and resources an individual acquires through their family and social background. This theory also explains some of the disparity in academic achievement between students in different socioeconomic classes. Several researchers (De Graaf 1986; Ganzeboom, De Graaf & Robert 1990; Kalmijn & Kraaykamp 1996) have suggested that parents' economic resources matter and that a family's cultural assets and background confer advantages on children. In other words, according to DiMaggio and Mohr (1985), children of wealthy parents are given extra tools, which help them improve their school performance and, thus, gain acceptance into more prestigious universities.

Furthermore, Bourdieu (1973: 87-95) highlighted the importance of assessing cultural capital by observing parental behaviors related to preferences and cultural tastes. To gauge the level of cultural capital, he introduced various indicators, including reading habits, attendance at cultural events such as theater or museum visits, and ownership of items like TVs and radios. Similarly, Teachman (1987: 550), measured parental cultural resources

contributing to educational achievement. He focused on participants' homes and the possessions therein, asking questions about whether they had a designated study area and the quantity of books, newspapers, or encyclopedias they possessed. To this day, the most commonly employed method for assessing cultural capital remains the number of books in a household (see for example Sundqvist 2009; Sieben & Lechner 2019; Schwarz 2020), although recent studies have proposed alternative indicators of cultural capital that seem to influence a child's educational success, such as whether the family resides in an urban or rural area (Forsman 2004; Klapp-Lekholm 2008) or if they travel abroad (Sylvén 2004). As to how cultural capital is measured in this thesis, the number of books in the students' households will not be included due to digitalization, which makes the majority of books available online nowadays.

Regarding language learning, Bourdieu's ideas have also been applied to explain the link between cultural capital and language acquisition. Bourdieu, Passeron, and De Saint Martin (1996), for instance, argue that the educational system reinforces social inequalities by not considering the diverse cultural and linguistic competencies possessed by students from varying socioeconomic backgrounds. In alignment with this, Bernstein (2000: 18-22) introduced the "code theory" to explain that our manner of communication varies depending on the social context, and this has implications for educational success. Essentially, he posits two types of language codes: "restricted" and "elaborated." The former is concise and commonly used in close-knit social groups, while the latter is diverse, formal, and intended for communication with a broader audience.

Moreover, Bernstein (2000) points out that school environments in the UK may contribute to the educational challenges faced by children from working-class families as they demand certain forms of communication and social interactions designed for middle-class students. To put it another way, he maintains that children from working-class backgrounds possess a restricted code that is not cultivated at school, whereas middle-class children already have an elaborated code predominantly used in education, contributing to their academic success. Clemente (2007), on the other hand, further explores how social class and cultural capital influence language learning. In her study, the author notes differences among ESL students based on their level of cultural capital, with middle-class students showing more enthusiasm for language learning, active participation, and attentiveness in class, while

students from working-class families may not view English as a valuable subject for their life or future career, resulting in a weaker sense of achievement compared to their middle-class peers.

All things considered and in the context of this thesis, the measurement of cultural capital will revolve around the participants' and their parents' education levels, as well as family material possessions, which are commonly used indicators of socioeconomic status (SES) in the *Programme for International Student Assessment* (PISA) to avoid asking direct questions concerning income (Brese & Mirazchiyski 2013: 41-43). In Chapter 6, section 6.3, a comprehensive exploration of the criteria used to assess the SES of the participants and their families will be provided.

3. Vocabulary acquisition

An essential part of language learning involves vocabulary, and for many learners worldwide, learning vocabulary continues to be one of the most challenging aspects of language acquisition, regardless of whether it is acquired incidentally by being exposed to it or intentionally through conscious learning (Nation 2022). This study explores vocabulary acquisition outside the classroom context, so a more detailed discussion of what vocabulary acquisition entails is necessary. Therefore, the purpose of this chapter is threefold: to address word knowledge and the choice of unit of counting, the aspects that affect vocabulary acquisition, and how vocabulary knowledge can be measured.

3.1. Knowing a word

As a first step, it is important to define what a 'word' is since it is constantly mentioned in the research context of vocabulary acquisition. In layperson terms, Schmitt (2010a: 30) mentions that knowing a word means knowing its definition and how to spell it, a sort of "form-meaning" link. To put it more simply, the term 'form-meaning connection' refers to the mental association between the form, i.e., the written or spoken representation of a word, and its corresponding meaning, the concept it represents (see also VanPatten, Williams & Rott 2004). Therefore, when learners encounter a new word, they go through a process of establishing and strengthening the form-meaning connection. This may involve learning and internalizing the word's pronunciation, spelling, or written representation (form) and understanding its meaning, usage, and context (meaning).

As a result, Webb (2007) emphasizes that understanding the form-meaning connection is crucial for learners to recognize and produce words accurately and appropriately because it allows them to retrieve the word's meaning when encountering it in receptive tasks (e.g., reading or listening) and to produce the word when expressing themselves in productive tasks (writing and speaking). In contrast, Richards's (1976) position is that knowing a word extends from recognizing its semantic value to understanding its syntactic behavior and connections with other words in the language. This suggests that a word's meaning is not isolated but linked to a network of associations. In the same way, Nation (2001) proposes other key aspects to be considered when attempting to know a word. These aspects include not only the spoken and written form of the word but also connecting its form and meaning, understanding its concept and referents, recognizing the word's associations with other words, identifying its grammatical functions, knowing its typical collocations, understanding constraints on its use, and having knowledge of the word as an individual item and within the broader linguistic system. Yet, in the context of vocabulary acquisition, Leńko-Szymańska (2020) suggests that learners need not know every aspect of a word to effectively use it. Instead, vocabulary gains can be evaluated based on the learners' capability to use words appropriately in specific contexts.

With that said, since the purpose of this study is to investigate vocabulary gains in out-of-school settings, learner knowledge of a word is thus assessed in terms of how well they are able to use words in a certain context rather than knowing every single aspect of them. The discussion will then start by outlining a crucial element of 'word knowledge', namely the unit of counting.

3.1.1. Unit of counting

In the context of vocabulary assessment, using a specific unit of counting ensures consistency in vocabulary measurement and allows researchers to evaluate language proficiency and track learners' vocabulary growth in a standardized manner. One way would be counting 'tokens' and 'types'. Nation describes tokens as "running words" and adds that in token-based tests, each word form either written or spoken, is counted no matter how often they occur (Nation 2022: 8-9). Contrastively to tokens, types are word occurrences that are only counted once, even if they appear multiple times (Nation 2022: 9). Nation also mentions that types help us answer questions like "[h]ow many words are needed to read

this book?" (Nation 2010: 7). However, this approach is quite difficult because there are different forms of the same word. For instance, *waits*, *waiting*, and *waited* are counted as different types of the word *wait*. As a result, there are differing points of view on the matter, such as whether inflected forms and derivatives should be seen as separate words; if only content words are taken into consideration, or how to classify homographs (Read 2000: 18-20). That is why there are alternative units of counting such as 'word families'.

Word families are word forms that "consist of a headword, its inflected forms and its closely related derived forms" (Nation 2022: 11). Read (2000: 19) provides the example of the word, "*leak*, with the inflected forms *leaks*, *leaking* and *leaked* as well as these derivatives: *leaky*, *leakiness*, *leakage* and *leaker*" [original emphasis]. Seeing how word families are structured through a relational network based on their form and meaning, it would make sense to use word families as the unit of counting. The problem with word families, though, is that there are no computer programs capable of counting them. Besides, identifying which word form belongs to a word family is not always straightforward (Schmitt 2010b: 190). Nonetheless, the unit of counting should be chosen based on the exact knowledge being measured, that is, either receptive or productive. To assess receptive knowledge, using word families as the unit of counting can be particularly useful because, when some members of the word family are already known, it is easier to learn the others as well (Nation & Webb 2011: 136). As for productive knowledge, Nation and Webb (2011: 136) point out that the process of learning how to use word families in oral and written production is much more time-consuming. Thus, a more appropriate and straightforward unit of counting that allows an understandable comparison between receptive and productive vocabulary is preferable, namely 'lemmas' (Nation & Webb 2011: 201).

Lemmas consists of a headword and its inflected and reduced forms (Nation 2022: 9). Read (2000: 18) gives the example of *society*, *societies*, *society's*, and *societies'* [original emphasis] and adds that all these words are considered to be part of a lemma. Nevertheless, the process of learning lemmas requires some effort for students as it is easier to remember the plural form *chairs* when already knowing the noun *chair*. On the other hand, the learning of irregular verbs and past tenses may take longer. For this reason, (Nation 2022) emphasizes that we are then faced with the problem of determining whether irregular forms should be considered as part of the base word of a lemma or as separate elements.

Overall, it appears that there is no universal unit of counting that can be used in all circumstances, as the choice will depend on the study's objective: whether it measures productive or receptive abilities (see section 3.3.1 for their definition), as well as the level of knowledge expected of the participants (Schmitt & Schmitt 2020: 10). In this study, for example, both the Vocabulary Levels Test (VLT) and the Productive Vocabulary Levels Test (PVLVT) used to measure receptive and productive vocabulary knowledge respectively, are based on the idea of word families grouped by frequency levels as established by Nation (1990). Therefore, in this thesis when talking about 'word knowledge' this refers specifically to word families.

Additionally, to assess overall vocabulary knowledge, the VLT uses a formula devised by Nation (1990: 78) to convert students' test results into a set number of known words for each frequency level, thereby determining the participants' overall vocabulary size, whereas the PVLVT simply counts the correct number of answers. A more comprehensive explanation of this approach will be provided in Chapter 6.

3.2. Learning vocabulary: Aspects to consider

It can be a challenge for language learners to master vocabulary due to the large number of words that exist within a language and as a language expands, continuous learning is also necessary. One of the difficulties in learning vocabulary is that different words can have different meanings depending on the context in which they are used. The term *bank*, for instance, can apply to both a financial institution and the bank of a river. Similarly, many words have minor meaning changes that can be difficult to comprehend, such as the distinction between "remarkable" and "notable" (Hu & Nation 2000). Because of these challenges, Nation (2006) and Laufer (1989) suggest that students need to be familiar with a substantial number of words in their target language. This familiarity helps them not only to understand written texts but also to comprehend spoken language more effectively.

3.2.1. The challenge of learning new words

A crucial factor that influences L2 vocabulary acquisition is the amount of effort it takes to learn a word, or what Nation calls the "learning burden" (Nation 2022: 48). That is to say, some words are easier for L2 learners to learn than others, and this may be impacted by both linguistic and non-linguistic factors. To begin with, a non-linguistic factor that can affect

vocabulary learning is students' motivation, as this influences their engagement and effort in vocabulary acquisition because motivated learners are more likely to invest time and energy in learning and retaining new words. Various motivational factors, such as intrinsic interest, extrinsic rewards, and personal goals, contribute to vocabulary learning outcomes (Dörnyei 2009). Another aspect is preexisting L2 vocabulary knowledge as this serves as a foundation for further vocabulary acquisition. Laufer and Hulstijn (2001) maintain that learners with a larger existing vocabulary repertoire may have an advantage in expanding their word knowledge due to the presence of interconnections and schema activation, i.e., they can draw upon their prior knowledge to make connections and understand new words more easily. Lastly, the learners' overall 'lexical competence', that is, their practical ability to learn, retrieve, produce, and comprehend words in a meaningful and communicative manner (Ellis 1999). This involves understanding collocations, idiomatic expressions, register variations, and pragmatic aspects related to vocabulary use (Nation 2022). Lexical competence is closely associated with vocabulary learning success and language proficiency.

As for the linguistic factors, Nation suggests that if a word contains a pattern that the learner is familiar with, then it will be easier for them to learn or remember it. A loan word or cognate from the learners' L1 (or another previously learned language) is usually helpful, as are words that are easy to pronounce, spell, or follow the same grammatical patterns as another word already learned (Nation 2022: 48). It is also Milton's (2009: 36) belief that word similarities, i.e., cognates between the learner's L1 and L2 contribute to easier vocabulary learning because the L1 knowledge is naturally engaged. Although cognates can indeed facilitate vocabulary acquisition and comprehension, there are instances where they can lead to confusion or misunderstanding, particularly in relation to false cognates or 'false friends'.¹ As a matter of fact, in a variety of studies where English cognates were examined in relation to Romance languages (Pérez Urdaniz & Skoufaki 2019; Lindqvist 2020; Szabo 2020), it was demonstrated that the presence of a cognate facilitation effect altered the results of vocabulary size tests among the participants since their L1 knowledge allowed them to achieve relatively high vocabulary scores.

¹ In English, for example, the word 'embarrassed' is etymologically related to *embarazada* (pregnant) in Spanish, which causes Spanish learners of English to believe both words have the same meaning.

Alternatively, how frequently a word appears in a text is another aspect that plays a decisive role in language learning. As stated by Webb (2007) in his study of incidental vocabulary acquisition through extensive reading, it was found that students' vocabulary gains of a word's meaning and form were higher if the word appeared multiple times throughout a text. Nonetheless, results from Malone (2018), as well as Jenkins, Stein, and Wysocki (1984), revealed that for learners to produce higher test scores, they need to have encountered the word at least 10 times as no meaningful results were detected in those students who had between two and six encounters. Schmitt (2010b), on the other hand, contends that learners need at least five to sixteen exposures to learn a word. Although this may be true, students' success with language learning is dependent not only on how frequently they encounter a word or how much exposure they have to the target language but also on the choice of vocabulary in textbooks and the media they consume outside of the classroom (Milton 2009).

3.2.2. The word threshold for English competence

According to Nation (2022: 194), for learners to effectively comprehend written texts they must have sufficient knowledge of words. To be more specific, the term 'threshold' represents the number of words necessary to comprehend roughly 95-98% of a given text's vocabulary. However, learners may wonder: which words should they prioritize learning first? Milton (2009) states that not all words in a language are equally important. Some words are more common than others, and learners will encounter them more frequently, either in spoken or written language, so frequent words tend to be learned before less frequent ones, as noted by Webb, Sasao, and Ballance (2017). Therefore, the amount of language knowledge required to comprehend spoken and written language varies according to the complexity of the text or conversation.

Nation (2006) suggests that if the aim is to achieve 85% lexical coverage in written texts and 90% in spoken discourse, then the emphasis should be placed on mastering the most frequent 2,000-word families in English. In contrast, for a coverage of 95%, then circa 3,000 and 4,000-word families are needed (Nation 2006: 59). This means that even if learners do not know every word they encounter, they can still grasp the overall meaning of a text or conversation. Nonetheless, Read (2000) finds that for ESL students enrolled in university programs, knowledge of between 5,000 to 10,000-word families is the minimum required.

Finally, Nation (2006) adds that to understand approximately 98% of the content in spoken discourse, 7,000-word families are needed, while 9,000-word families are required for written texts.

When addressing word frequency, Nation (2022: 18-19) classified English words into three frequency categories: high-frequency, mid-frequency, and low-frequency. Approximately 95% of the words in spoken and written language fall into the high-frequency category. Traditionally, these correspond to the most common 2,000-word families, although other researchers have suggested increasing this figure to 3,000-word families. For instance, Schmitt and Schmitt (2014: 492) argue that 3,000-word families represent an important milestone in the development of language from a pedagogical perspective as students are able to use the language independently. Mid-frequency words, on the other hand, are composed of roughly 6,000-word families (Nation 2022: 19) but Schmitt and Schmitt (2014: 494) state that these words fall instead between the 3,000 most frequent word families and the 9,000 low-frequency ones. As a result, Schmitt and Schmitt emphasize the importance of re-assessing the number of high-frequency and low-frequency word boundaries in future research to incorporate mid-frequency words.

Conversely, low-frequency words make up less than 1% of spoken and written language, which means they are the scarcest in a text. Schmitt and Schmitt (2014: 494) consider this level to begin at 10,000+ words. Most of these terms are technical, proper names, or seldom-used words. They may have a similar meaning to a word or phrase that is more common, they can be outdated terminology, dialect-specific terms, vulgar words, or even foreign words, and yet, they are necessary to read a novel in English with 98% coverage (Nation 2022: 29). Also, Nation and Waring (1997: 10) agree that teaching these words is not a priority due to their rarity, and teachers should instead focus on developing vocabulary strategies like teaching them as part of specific or technical vocabulary and by using certain texts as aid.

Moreover, besides high, mid, and low-frequency words, there are also academic and technical words, i.e., specialized vocabulary. Nation (2022: 20-21) mentions that academic words typically make up about 9% of the words found regularly in academic texts and are of particular importance to students using English for Academic Purposes. In contrast, technical words are related to specific subject areas or topics, they make up approximately 20% to

30% of the vocabulary in the specialized text and differ from one subject area to the other (Nation 2022: 21). Technical vocabulary, is either composed of high-frequency words, the 'Academic Word List' (AWL), the 'University Word List'(UWL)² or words pertaining to highly specialized fields (Nation & Meara 2010: 37), which also fall into the low-frequency category.

In summary, it can be said that if English language learners want to be able to comprehend 95% of spoken English, they should be familiar with a minimum of 3,000-word families, while around 4,000-word families are necessary for comprehending written text. On the other hand, if the aim is to obtain 98% coverage, then learners must be able to recognize 6,000 to 7,000-word families for speaking and between 8,000-to-9,000-word families for understanding written material (Nation 2022: 16).

As for what type of learning students should prioritize for vocabulary acquisition, will depend entirely on the learner's individual learning goals. However, Schmitt (2000) points out that intentional learning may achieve greater retention and learning outcomes, but it can also be very time-consuming. For this reason, Schmitt (2000), along with other scholars like Nation (2001, 2022), and Laufer (2005), emphasizes the importance of combining intentional and incidental learning as often as possible, as incidental learning can supplement intentional learning to promote word retention (Laufer 2005). Furthermore, incidental learning allows learners to build their vocabulary quickly, especially for high-frequency words, while intentional learning allows them to deepen their understanding of the words and their use, especially for low-frequency words (Schmitt 2000; Nation 2001).

3.3. Measuring vocabulary knowledge

The measurement of vocabulary knowledge has a long and evolving history in language studies. While vocabulary has always been an essential part of language learning, its efficient assessment and measurement were not always regarded as important as other language components. In Brown's (2020) view, during the early stages of language education, the primary focus was grammar rules and translation exercises, whereas vocabulary was

² The Academic Word List was developed in 2000 by Coxhead and identifies 570-word families used in academic texts (academic journals, edited online academic journals, university textbooks, etc.). In contrast, the University Word List was developed by Xue and Nation in 1984. It contains 836-word families that are commonly used in academic texts but are not found elsewhere.

perceived as merely a tool for comprehending grammatical structures and aiding translation. Thus, the focus on vocabulary was limited, and its assessment was not a priority in language teaching and learning. It was not until the 1970s that researchers started investigating vocabulary (Meara 1996; Leńko-Szymańska 2020).

Nowadays, however, it is widely recognized that lexical knowledge is a meaningful predictor of a learner's language proficiency as it provides valuable insights into learners' language abilities and tracks their language development (Meara 1996). Over time, researchers have developed various methods and tools for measuring vocabulary size and proficiency. The following section examines receptive and productive knowledge, both of which are relevant to this study, as well as the testing tools devised and used to measure both, namely the Vocabulary Levels Test (VLT) and the Productive Vocabulary Levels Test (PVLt).

3.3.1. Productive and receptive vocabulary

As stated by Laufer and Goldstein (2004), receptive, also called 'passive' knowledge, refers to the ability of a language learner to understand the meaning and usage of a word when encountered in listening or reading activities. Productive or 'active' knowledge, on the other hand, is the capability to produce vocabulary items in speaking and writing; this also includes understanding not only the meaning of the word but also using it appropriately with its collocations, which refers to how words go together or form fixed relationships (Cambridge Dictionary, n.d.), and other grammatical structures.

Even though both types of knowledge work together to enhance language learning and communication abilities, Milton (2009) and Nation (2022) draw attention to the notable disparity in the amount of practice that receptive vocabulary receives in comparison to productive vocabulary and in the ease with which learners acquire receptive vocabulary. For instance, Nation (2022: 53-54) points out that receptive vocabulary use is easier for students and generally gets more practice due to the nature of language input in listening and reading activities. Learners tend to be more exposed to a vast array of words when engaging in activities like watching videos, reading texts, etc., and they encounter numerous vocabulary items in various contexts, which leads to a higher frequency of passive exposure to words. Further, Milton (2009) indicates that students must have a large receptive vocabulary before they can develop a productive one and that they must first recognize and understand a

word's form and connect it to its meaning before they can actively use it. This makes productive learning more challenging since it requires learning new spoken and written patterns, whereas receptive use only involves knowing a few distinctive characteristics of a word's form.

Similarly, Nation (2022) highlights that during normal language learning settings, productive vocabulary, used in writing and speaking, does not receive the same level of practice as receptive vocabulary, an aspect that becomes critical in vocabulary tests when comparing receptive versus productive vocabulary sizes in students. The reason behind this according to the author is that language learners may feel more hesitant to use certain words actively, especially if they are unsure about pronunciation, collocations, or appropriate usage. Additionally, speaking and writing require more effort and cognitive processing, making learners more cautious when selecting vocabulary for expression.

As a consequence, researchers have developed multiple tests to assess how L2 learners acquire receptive and productive vocabulary knowledge. However, due to the complexity of vocabulary knowledge, several researchers (Sundqvist 2009: 64, Schmitt 2010: 152, Milton 2009: 115) recommend employing more than one vocabulary test, as a single test rarely offers a comprehensive understanding of vocabulary proficiency. Research also suggests that both the Vocabulary Levels Test and the Productive Vocabulary Levels Test are reliable ways of measuring L2 learners' vocabulary size (see Sundqvist 2009, Agustín Llach & Terrazas Gallego 2012). For this reason, these two tests will be employed in this study.

3.3.2. The Vocabulary Levels Test

The VLT is a monolingual recognition matching test, originally developed by Nation in 1983 and later revised by Schmitt, Schmitt, and Clapham in 2001. According to Schmitt, Schmitt, and Clapham (2001: 58), the frequency levels in the test were created by carefully selecting words from various word lists. The words were drawn from word lists available in Thorndike and Lorge (1944), Kucera and Francis (1967), the General Service List (GSL) from West (1953), and as for the academic level, the words were taken from Coxhead's (2000) Academic Word List (henceforth AWL) instead of the original University Word List (UWL) by Xue and Nation (1984).

The test measures learners' receptive knowledge and tests five frequency levels, namely 2,000-word level, 3,000-word level, 5,000-word level (the boundary between high and low-frequency vocabulary), academic vocabulary, and lastly infrequent vocabulary, that is, 10,000-word level (Nation 1983: 14-15). The test's main objective is to match words from one column with their meanings in another column as shown in Figure 1.

Nonetheless, Schmitt (2010b: 198) stresses that the test does not provide an estimate of a learner's overall vocabulary size, the idea is for it to be used as a placement/diagnostic test instead.

2000 level		3000 Level	
1. copy		1. blanket	
2. event	☐ end or highest point	2. contest	☐ holiday
3. motor	☐ this moves a car	3. generation	☐ good quality
4. pity	☐ thing made to be like another	4. merit	☐ wool covering used on beds
5. profit		5. plot	
6. tip		6. vacation	

Figure 1. Examples from the Vocabulary Levels Test

There are 60 words in each frequency level, divided into 10 groups of six words. Out of these six words, only three are tested, while the other three are distractors, making a total of 30 words tested at each frequency level. In scoring the test, the scores at each individual level reveal where vocabulary learning should be focused the most. As for the scoring, the correct combination of the target word with its definition is worth one point and each frequency level can award up to 30 points.

3.3.3. The Productive Vocabulary Levels Test

The PVLТ builds upon the VLT introduced by Nation in 1983. The PVLТ assesses controlled productive vocabulary knowledge, which refers to the ability to produce words in certain contexts when asked to do so by a teacher or examiner (Laufer & Nation 1999: 37). Therefore, the PVLТ adapted the format of the VLT by incorporating a sentence completion item type, as depicted in Figure 2 below:

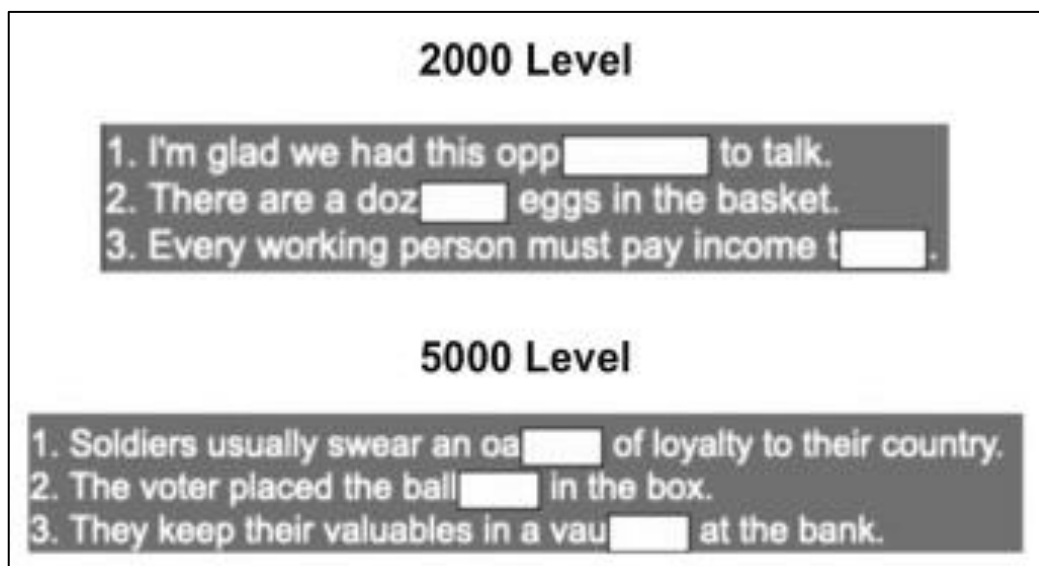


Figure 2. Examples from the Productive Vocabulary Levels Test

In this version, test-takers are prompted to actively produce specific target words based on a given sentence context or a definition with initial letters provided as clues. Same as with the VLT, the PVLТ targets words from each frequency level (2,000, 3,000, 5,000, UWL, and 10,000). There are 18 items in each frequency level (a total of 90 items) and they are the same as in the VLT test. As for the scoring, each correct answer is worth one point, and in the online version³ of the test, an 88% mastery score is reported if a learner achieves 16 out of 18 items from a certain level. Nevertheless, Laufer and Nation (1999: 41) argue that the learner's educational level plays a role in determining whether a specific level should be considered successful, and this determination ultimately relies on the judgment of the test grader. In section 6.3 the adjustments made for this test will be further explained.

As observed, both tests have proven valuable for educational and research purposes. Nonetheless, they have not escaped criticism. Nation (2007: 40) acknowledges the VLT's usefulness but also raises some critical points. He asserts that the monolingual version of it may be excessively challenging for learners with lower proficiency levels. In addition, he suggests that bilingual versions of the VLT would be applicable only in environments where all learners share the same L1. Likewise, the PVLТ has faced criticism from Meara and Fitzpatrick (2000: 21) who state that "this kind of test item can easily identify what the test takers do not know, but it is rather less successful at identifying the full extent of what they

³ Both the VLT and the PVLТ versions used in this study can be accessed online through Cobb's website <https://www.lexutor.ca/tests/> (Cobb, n.d.).

do know". It is therefore hard to estimate the true size or range of a learner's productive vocabulary based on a small sample of test items since the vocabulary they are asked to produce is often context-specific. On the other hand, Read (2000) adds to the criticism by arguing that the PVLT, similar to the VLT, only presents the results in terms of how many words are known at each frequency level instead of giving an overall vocabulary size estimate. As Read (2000: 125) points out:

[...] the blank-filling test items appear to be quite variable in the demands they make on the learners because of the differing number of letters given to cue the target word. This means that some test items require more word knowledge – and more use of contextual information – than others do, which complicates the issue of what the test as a whole measures.

Additionally, Read (2000: 126) notes that although Laufer and Nation (1999) claim that the PVLT assesses a learner's productive vocabulary proficiency, they did not provide enough evidence to support their claim because the correlations reported in their previous studies were either moderate or yielded contradicting results. Despite the criticism, Read (2000) comes to the conclusion that studies looking into the validity of the VLT have repeatedly demonstrated both its accuracy and reliability in measuring what it intends to assess. Furthermore, he states that the evidence points to the VLT as being a reliable and consistent tool for gauging the targeted aspects of language proficiency. In line with this, Kirchner (2013) contends that the VLT proves to be a valuable resource in the realms of education and research since the test items assess the learner's ability to passively recognize words without offering explicit meanings or definitions, while also not requiring knowledge of the distractors. This feature enhances the test's utility and reliability in assessing vocabulary knowledge. As far as the validity of the PVLT test is concerned, Laufer and Nation (1999) make clear that this test is more beneficial when used together with other receptive tests like the VLT. A further point made by Meara and Fitzpatrick (2000) is that the test is most effective for students with limited vocabulary size.

In sum, a number of aspects related to vocabulary acquisition have been explored in this chapter, revealing that it is a complex process influenced by a wide variety of factors. The elements that influence vocabulary acquisition were examined as well as the definition of a word and the different ways to count them. Furthermore, it was brought to attention that there seems to be no one-size-fits-all unit of counting applicable in all situations since the

appropriate choice of unit will depend on the specific aim of the study, whether it focuses on measuring productive or receptive abilities. The chapter also highlighted that to achieve 98% coverage of spoken and written language, learners should know the most common 6,000 to 9,000-word families in English (Nation, 2013: 16). To achieve these goals, it is essential to combine both incidental and intentional learning, with reading being the most effective method, while repetition also plays a crucial role in acquiring vocabulary knowledge. Similarly, it was discussed how receptive vocabulary precedes productive vocabulary and two testing tools that are crucial for this study were introduced, namely the Vocabulary Levels Test and the Productive Vocabulary Levels Test.

4. Extramural English

Recent advancements in language acquisition have highlighted the importance of learner engagement beyond the classroom, suggesting that language learning can take place anywhere and at any time (Hyland 2004). Out-of-class activities, as proposed by Nunan and Richards (2015), play a crucial role in addressing weaknesses associated with traditional classroom-based learning. As Richards (2015) points out, today's world offers language learners exceptional opportunities for meaningful and authentic language use through the internet, media, and technology, as well as in-person and online English usage, surpassing what traditional classrooms can provide.

The term 'Extramural English' was coined by Sundqvist (2009: 24) who defined it as "the English that learners come in contact with or are involved in outside the walls of the classroom". Sylvén and Sundqvist (2016: 9) describe that the term *extra* refers to 'outside' and *mural* to 'wall', both derived from Latin. Thus, EE typically involves using English in informal educational settings, such as reading books or online blogs, using social media, watching movies or series, listening to music and podcasts, or even visiting English-speaking countries. Sundqvist (2009: 25) also emphasizes a crucial point: EE activities are often not undertaken with the intention of learning English. EE encompasses intentional activities through which learners expose themselves to English, such as regularly watching English movies and series to expand their vocabulary. As learners' exposure to English increases, they often experience enhanced confidence, improved communication skills, and more meaningful interactions with both native and non-native speakers. In light of this, Lai, Zhu, and Gong (2015) contend that a wide range of courses and educational institutions now

emphasize the value of using English outside of the classroom, enticing learners to converse with other English speakers and utilize English-language media.

4.1. Benefits of extramural English for language learning

Several research papers have been written about the extramural English vocabulary knowledge of students in relation to EE activities, particularly that of middle and high school students. Hence, some of the studies on EE activities will be examined in this part, starting with younger learners and progressing to older students.

Using language exams and a diary, Sundqvist and Sylvén (2012) investigated the extramural English habits of 86 Swedish students between the ages of 11 and 12. Their data revealed a pattern: students who played video games for five or more hours a week performed better than their non-gaming peers. Boys outperformed girls in terms of vocabulary, indicating gender-related disparities. Overall, the findings demonstrated that gaming has a beneficial effect on L2 language acquisition.

In a study involving children aged 10 and 11, Sundqvist and Sylvén (2014) discovered that these young learners were devoting an average of 7.2 hours per week to extramural English activities. Interestingly, gender discrepancies were also observed, with boys spending an average of 11.5 hours weekly on extramural activities compared to girls' 5.1 hours. This variance stemmed from boys dedicating more time to activities such as watching TV or gaming in English, while girls showed a preference for engaging in other extramural activities in their L1 (Swedish), particularly using social media. The top five prevalent extramural English activities among the students included watching TV for 2.3 hours per week, gaming for 1.4 hours per week, listening to music for 1.4 hours per week, watching movies for 1 hour per week, and surfing the internet for 1 hour per week. Regarding English proficiency, Sundqvist and Sylvén (2014) found that frequent gamers exhibited the highest confidence in their oral proficiency.

Comparable research has been carried out in China among teenage learners of similar age groups. For instance, Lai, Zhu, and Gong (2015) examined 82 EFL learners, averaging 14 years old, who dedicated approximately 1.18 hours daily to self-initiated extramural English activities. These activities predominantly comprised receptive tasks such as watching English movies and listening to music. Furthermore, the findings revealed significant correlations

between EE activities and increased enjoyment in English learning, increased confidence in language use, and improved academic performance (Lai, Zhu, & Gong 2015: 291).

Returning to Europe and shifting focus to teenagers, a study conducted by Sundqvist and Wikström (2015) examined the impact of out-of-school digital gaming on 80 teenagers. It revealed that those who played digital games in English for an average of five hours or more per day achieved higher scores on the PVLt test, demonstrated superior essay writing skills, used more advanced vocabulary in their writing, and earned the highest grades. Likewise, Olsson (2012) investigated productive vocabulary knowledge, specifically writing proficiency, among 16-year-old pupils. Olsson found that students who frequently engaged in EE activities outperformed their peers on the writing proficiency test. Among the most common EE activities among pupils with higher grades were reading, traveling, speaking, writing, watching TV, and playing computer games in English (Olsson, 2012: 44).

Further, Sundqvist (2009) investigated the EE activities of 80 Swedish teenage students using a range of assessments, including a language diary and proficiency tests (oral, VLT, and PVLt). She discovered a positive correlation between the total time spent on EE activities, oral proficiency level, and vocabulary size. More specifically, EE activities such as playing video games and reading books, had a more significant impact on students' oral proficiency and vocabulary compared to passive activities like watching TV and listening to music. Gender differences were evident as well, with boys surpassing girls in both performance and time spent on EE activities (Sundqvist 2009: 204).

Similarly, Schwarz (2020) conducted a comparable study involving 224 Austrian teenagers, employing similar methodologies such as a language diary and vocabulary tests (V_YesNo and Lex30). Schwarz found that students spent an average of four hours daily on EE activities, predominantly engaging in receptive online activities such as listening to music and watching online audiovisual media. Regarding gender differences, Schwarz noted that boys outperformed girls in both productive and active vocabulary knowledge, although the data suggested that the frequency of engagement with EE activities was more closely linked to receptive vocabulary than productive vocabulary (Schwarz, 2020: 260-261).

As previously stated, extensive research has explored the benefits of EE for younger students, particularly those in primary and secondary schools. However, there is a scarcity of

studies addressing the participation of adult learners in extramural activities, especially those whose native language is Spanish. In this area, the research remains largely unexplored. Overall, the available studies focusing on EE and adult language learners are rather limited. A notable example is the study conducted by Knight (2007), which employed a quantitative approach involving 41 adult university students who were recent immigrants enrolled in ESL courses at a community college in the US. Knight (2007) identified watching TV as the most frequent EE activity, averaging six hours a week per person, followed by reading, primarily school material, with an average of 4.4 hours weekly. The third activity was listening to the radio in English, averaging 3.1 hours per week.

Several studies have also explored the EE activities of adult learners in Hong Kong. One of them was conducted by Hyland (2004), who found that students pursuing English teaching careers favored receptive activities like listening to the radio and reading various materials (newspapers, books, magazines) over public face-to-face interactions due to concerns about judgment. In line with this, Pill (2001) carried out a study at the British Council on advanced English adult learners and concluded that while they had access to diverse EE activities, their preferred choices were passive ones like listening to music, watching movies, and reading, while showing less inclination towards active activities such as writing and speaking with native English speakers. Moreover, Miller and Hegelheimer (2006) as well as Ranalli (2008) found a favorable relationship between gaming and the acquisition of English vocabulary in adult learners, particularly when supporting resources like vocabulary lists were added. All in all, these studies serve as examples supporting the notion that extramural exposure to English can effectively improve language skills.

4.2. Range of extramural English activities

Having established the definition and importance of extramural English in language development, this section will delve into the advantages students can gain from its use. With numerous extramural English media available nowadays, the discussion will center on the most common media formats recommended by experts in the field.

4.2.1. Books and articles

As argued by Burt, Peyton, and Adams (2003), extensive reading, often referred to as reading for pleasure, stands out as a valuable means for learners to acquire vocabulary

knowledge as it is a source of authentic language input. Additionally, research on extensive reading is closely associated with incidental vocabulary acquisition. Horst's (2005) study, for example, employed simplified reading materials at various proficiency levels and revealed that participants learned over half of the unfamiliar words they encountered in their readers. These findings align with Pigada and Schmitt's (2006) research, which explored the impact of one month of extensive reading on the learning of 133 target words. Their study demonstrated that extensive reading indeed contributed to enhanced knowledge of at least 65% of the target words, as evidenced by improvements in their spelling, grammar, and vocabulary acquisition.

In the same way, in Schmitt and Redwood's (2011) study, the authors found correlations supporting the notion that extensive reading, when practiced as an extramural activity, had a positive influence on learners' grasp of phrasal verbs, whereas González-Fernández and Schmitt (2015) also provided substantial evidence to suggest that there is indeed a strong relation between out-of-class reading and learners' comprehension of English collocations. Nonetheless, while extensive reading facilitates incidental vocabulary acquisition, it is imperative not to rely solely on this method. As suggested by Nation (2001), it is essential to complement extensive reading with intentional learning, particularly for low-frequency words such as technical or academic terminology.

4.2.2. Music

Music constitutes an important tool that can be used in many ways to aid in the vocabulary acquisition of learners. Murphey (1992) lists several reasons why songs, especially those from the pop genre, are favorable for L2 learners. Murphey's claim is that pop songs often use language that is similar to that of an 11-year-old native English speaker, making this form of vocabulary appropriate for English learners.

Furthermore, unlike real speech, the lyrics tend to be sung slower, with pauses in between utterances; their lexicon consists of common short words with several pronouns, and they often have a repetitive structure (Murphey 1992). In addition, numerous studies have explored the connection between music and memory, that is, linguistic memory. It appears that songs featuring repetitive lyrics and rhythms are advantageous for memorizing vocabulary and developing various language skills, including grammar structures and

pronunciation. Murphey (1990: 55) found that the repetition of language sounds within songs (also known as "the song stuck in my head phenomenon") motivated students to work on their L2 beyond the classroom setting.

Similarly, music offers advantages for incidental language learning. Schön et al. (2008) experiment on adults combined language and music to investigate whether learning a new language through songs was more efficient than through regular speech. The researchers' theory was that when the musical and linguistic components of a song aligned consistently, it could improve students' learning outcomes. The findings indicated that, especially during the initial phases of language acquisition, when trying to figure out word order, students could significantly benefit from the speech structuring properties found in songs. In line with this, Niousha, Webb, and Faez (2019) also discovered that repeated exposure to songs significantly aids in learning targeted vocabulary, even when learners have a small vocabulary size. Although the vocabulary gains in their study were not particularly high, the main takeaway from the study is that consistent and repeated exposure to input facilitates vocabulary retention over time.

Therefore, there is widespread agreement among researchers on the effectiveness of using songs and music as tools in L2 acquisition, as they can significantly support vocabulary learning. As affirmed by Nuessel and Cicogna (1991), songs and music serve as versatile resources that facilitate activities such as pronunciation practice, vocabulary expansion, and the exploration of morphological and syntactic language patterns.

4.2.3. Podcasts

Evans (2008: 492) provides insight into the origin of the term *podcast*, which arises from the fusion of the words "iPod" (Apple's media player) and "broadcast". Moreover, he refers to the term *podcasting* as a subset of mobile learning involving the distribution of audio or video recordings on the internet, which can be conveniently downloaded to learners' laptops or cellphones.

Much like books and music, podcasts serve as an extramural English activity that fosters learners' independence and motivation, offering numerous benefits for language learning. Notably, podcasts have demonstrated their efficacy in enhancing listening skills (Abdous, Camarena & Facer 2009), boosting overall grammar and vocabulary proficiency (Weinberg,

Knoerr & Vandergrift 2011), and refining pronunciation through exposure to a wide range of voices, accents, and varied social and academic contexts (Thorne & Payne 2005). Likewise, Fox (2008) mentions that given the imperative need for extensive practice in language acquisition both within and beyond the classroom, the availability, affordability, and accessibility of podcasts render them a compelling tool for language learners.

Similarly, Evans (2008) highlights that besides podcasts being beneficial for extensive listening, one of the primary motivations for students to incorporate them in language learning is that it grants them the flexibility to learn while on the go. Read (2007) also points out that podcasts serve as an effective language-learning tool, particularly beneficial for students whose L1 is not English. These students may require additional language input, and podcasts provide them with exposure to authentic and engaging content mirroring real-life situations. Through podcasts, learners can also grasp idiomatic expressions, resulting in a deeper comprehension of the English language and culture.

4.2.4. Movies and TV

Previous research indicates that watching English TV programs and movies enhances language proficiency in learners as extensive viewing not only aids in intentional vocabulary acquisition but also in incidental learning. Webb (2015: 159), for instance, notes that watching TV extensively fulfills the need for more L2 input, which is often lacking in many language-learning contexts. Likewise, Webb and Rodgers (2009), as well as Rodgers and Webb (2011), emphasize that TV programs, such as series, often feature repetitive low and mid-frequency word families, enhancing the likelihood of incidental vocabulary acquisition. For example, the study conducted by Rodgers (2013) revealed that watching 13 episodes of a TV series had a positive impact on vocabulary acquisition.

Alternatively, research has consistently shown that watching TV in a foreign language is a common extramural activity that learners frequently engage in, and it is also beneficial for vocabulary acquisition (Lindgren & Muñoz 2013; Sylvén & Sundqvist 2014; Peters 2018). Lindgren and Muñoz (2013) found that watching subtitled movies as an out-of-class activity positively correlated with learners' listening and reading proficiency. Similarly, Peters (2018) identified a positive correlation between learners' vocabulary knowledge and the amount of time they were exposed to English media (magazines, books, and non-subtitled TV programs

and movies) both inside and outside the classroom. Peters (2018) concluded that out-of-class exposure had the most significant benefits for her students.

These findings are consistent with the results of Kuppens's (2010) study, which investigated Flemish primary students without prior formal English education. These students were exposed to substantial amounts of English input through subtitled movies, TV shows, and other sources. Kuppens reported that exposure to subtitled English media had a discernible impact on learners' vocabulary knowledge, particularly in terms of long-term effects. Overall, Kuppens (2010) explains that watching TV and movies in English not only provides learners with intensive input but also fosters positive attitudes toward the language. These attitudes are strongly correlated with language acquisition, especially among students who perceive English as a 'cool' language due to its prevalence in various aspects of their lives.

4.2.5. Video games

Learning vocabulary through computer use and video games is another extramural activity frequently embraced by students, and it has been advocated as a means to enhance learners' vocabulary knowledge (Sundqvist 2009; Sylvén & Sundqvist 2012, 2014; González-Fernández & Schmitt 2015). Furthermore, Casañ-Pitarch (2018: 1147-1148) highlights the potential of digital games to benefit vocabulary and grammatical competence and foster all four major language skills. He also emphasizes the need to distinguish between serious and conventional games. Serious games are designed with pedagogical purposes in mind, such as *Who is Who* and *Domino*, while conventional games, like *The Sims* and *World of Warcraft*, are primarily intended for player entertainment.

Despite the many advantages gaming offers for vocabulary learning and oral proficiency, as argued by Sylvén and Sundqvist (2012), they emphasize the significance of carefully selecting the appropriate game genre aligned with students' learning goals, as not all games are suitable for language learning. Hence, Kinzie and Joseph (2008: 644) propose six activity modes to categorize different gameplay types, namely "active, explorative, problem-solving, strategic, social, and creative play." They suggest that the more of these characteristics a video game possesses, the more effective it is in improving language skills. For example, Sylvén and Sundqvist (2012) mention that a game like *World of Warcraft* is ideal for language learning, as it incorporates all six modes, allowing players to interact and

collaborate through voice or text chat, necessitating constant use of their second language skills.

What's more, a study by Coxhead and Bytheway (2015) revealed that multiplayer online role-playing games present ample opportunities for encountering unfamiliar words, as the average gamer spends approximately 22 hours per week on digital games. Additionally, when it comes to gaming among adult learners, Cordie, Lin, and Whitton (2021) contend that digital games with a pedagogical focus serve as a source of motivation, especially when game objectives are clearly defined and learners do not feel overwhelmed by the learning process.

4.2.6. Internet and social media

In this digital age, the prominence of social media and the internet has revolutionized not only the way we communicate and interact but also the way we learn and acquire new skills. The accessibility and ease of use of these platforms have greatly improved the learning experience. Alharthi, Bown, and Pullen (2020) highlight the evolving role of English as the dominant lingua franca on social media platforms, facilitating interactions among individuals from diverse language backgrounds and creating informal and spontaneous learning opportunities for non-native English speakers.

Furthermore, social media platforms offer significant benefits for language learning beyond the classroom. According to an OECD (2024) study on how teenagers engage with English in their free time, the majority of participants use the language to communicate online or offline with people who speak different languages, including family members who are foreign-born and do not speak the same first language. Additionally, some individuals reported using language learning applications to enhance their English skills, while others stated that they purposefully watched English-language content online, either with or without English subtitles, and used English to browse the internet.

Moreover, the ability to communicate with native speakers through social media platforms is a valuable benefit for improving conversational and pronunciation skills. Lin, Warschauer, and Blake (2016) emphasize the significance of students interacting with native speakers through social networks, as it helps shape their cultural identity while learning English. In the same way, Brick (2011) underscores the value of real-time conversations with native

speakers, allowing students to receive immediate spoken feedback. Overall, social media and the internet hold a significant role in L2 vocabulary acquisition as these tools can enhance informal learning by encouraging autonomy, agency, and overall engagement among learners, as suggested by McLoughlin and Lee (2010).

4.2.7. Traveling

Many studies on extramural English activities often overlook travel or time spent abroad as an out-of-class language-learning method. Nonetheless, it is quite plausible to expect that increased exposure to a foreign language naturally reinforces its proficiency. Schwarz's research (2020: 198) provides valuable insights into this topic, as it reveals that over 60% of participants reported experiences in non-English-speaking countries where they used English during their stay abroad. This underscores the significant role that travel and immersion experiences can play in language acquisition outside of formal classroom settings.

In addition, there is compelling evidence to support the idea that prolonged stays or study-abroad experiences can significantly enhance foreign language competence, including pronunciation skills (Solon & Long 2018) and oral proficiency (Wright 2018), often with results showing almost automatically (Isabelli-García 2006). For instance, Brecht, Davidson, and Ginsberg (1995) observed notable improvements in language proficiency among students who had participated in overseas programs. Nevertheless, it is essential to consider various factors, including learners' motivation, duration of stay, and interactions with native speakers, before drawing general conclusions. Lapkin, Hart, and Swain (1995) emphasize a common consensus: prolonged immersion in a foreign country and culture is likely to lead to improvements in language proficiency over both the short and long term, a perspective corroborated by findings in various other studies (e.g., Llanes & Muñoz 2009; Briggs 2015).

After discussing the definition of extramural English, its benefits, and its importance for language learning, the next chapter will explore the relevance of English in Latin America, with a particular focus on Costa Rica and how this language has shaped the area's educational policies.

5. The importance of English in Latin America

The influence of the English language throughout the region has been one of the main drivers of Latin America's economic progress. Although there is a dearth of literature examining the connection between the growth of Latin American nations and the English language, Rojas and Hernández-Fernández's (2018) thorough research attempts to close this gap. Their in-depth investigation explores the complexities of this subject, offering insightful information and acting as one of the main sources for this section. To ensure brevity, this section will primarily address how educational policies and English language instruction have evolved in the area. This discussion is particularly relevant given Rojas and Hernández-Fernández's (2018) findings regarding the incorporation of English in Latin American school curricula and the ensuing political and educational challenges.

Rojas and Hernández-Fernández (2018) indicate that while many indigenous languages are still spoken in this region, Spanish and Portuguese are the main dominant languages in Latin America, whereas English as a globally recognized lingua franca holds a distinct position of importance as it contributes to the region's educational advancements, socioeconomic growth, and international engagement. Nonetheless, due to the long history of colonialism and intense independence struggles of the region's nations since 1821, the incorporation of English in Latin American school curricula has generated political debate and criticism. Besides, the population diversity and unstable political environment in Latin American countries result in highly unequal levels of access and educational opportunities for their residents. Because of this, educational policies have primarily focused on ensuring that all groups have access to education and that children stay in school for as long as possible.

As a result, language instruction in Latin America, particularly in the public education system, has long been neglected and turned into a luxury that only the elite can afford privately (Rojas & Hernández-Fernández 2018). Still, as noted by Starkey (2011), in our contemporary globalized world where nations rely on mutual interdependence, the need for interaction among governments has become evident.

In consequence, English has evolved into an indispensable survival tool which has prompted countries in Latin America to recognize the significance of improving public policies that foster the development of multilingualism and intercultural societies. This acknowledgment

resulted in governments openly petitioning to include English in their public education systems, but there are still challenges as the quality of ESL teaching in public schools varies considerably. As indicated by the 2022 report of the English Proficiency Index (EPI) of Education First (EF), English proficiency in Latin America has tended to be consistently low, exhibiting variations among different countries in the region. The EF EPI classified English proficiency levels into four categories: very high, high, moderate, and low.

Based on the EPI findings from last year, none of the surveyed Latin American nations achieved a 'very high level' of English proficiency. Argentina stands out as the only country in the region where its inhabitants have a 'high level' of English proficiency, followed by Costa Rica in second place and Cuba in third, both of which are within the 'moderate' category. Conversely, countries such as Mexico and Haiti hold the lowest ranks, reflecting a considerably low proficiency level. However, there has been a notable improvement in almost every country over the last decade, where countries from a low-proficiency region have moved up to a moderate one (EF English Proficiency Index 2022: 22).

On the other hand, Cronquist and Fiszbein (2017) report on the challenges of English Language Teaching (ELT) in Latin America. In their report, the authors evaluated ELT policies in Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Uruguay, and Peru across four dimensions, namely legal basis, learning standards, student achievement, and teacher qualifications. The legal basis aspect takes into account a country's commitment to foreign language education and what they found is that in many Latin American countries, there are no language policies to support high-quality ESL education and the situation varies from one country to the other. For example, in countries such as Costa Rica, Chile, Ecuador, Mexico, and Panama ELT is mandatory by law, whereas in Brazil, it is compulsory only after secondary education. Conversely, in Argentina, Uruguay, Colombia, and Peru, students are just encouraged to take English classes while in school.

As for the learning standards, Cronquist and Fiszbein (2017) examined and categorized each country in terms of its ESL standards. Essentially, some countries have formal national standards as to what students should know or be able to do according to their ESL education. Except for Argentina and Brazil, which have broader objectives regarding foreign languages in general, most Latin American countries have specific policies and national standards for English language learning (ELL) where they specifically outline the order in

which ESL content must be taught in their study programs, although this is not the case for Ecuador, Peru, and Uruguay where these ESL standards do not exist.

The aspect of student achievement assesses whether countries have set proficiency benchmarks or have established measurement guidelines to evaluate if these benchmarks are met. This is because while learning standards define what students should achieve, measurements allow us to determine if these goals have been reached (Cronquist & Fiszbein 2017: 32). As the authors explain, the variation in the aforementioned Latin American countries is considerable. On the one hand, Argentina, Brazil, and Panama lack measurement guidelines for ELL, while on the other, Costa Rica and Uruguay have high expectations and require graduating secondary students to achieve a B2 level of proficiency. This does not imply, however, that there are reliable national or international assessments to verify whether these expectations in Uruguayan and Costa Rican students align with reality. Cronquist and Fiszbein's (2017) findings report that only a handful of countries make use of national and international exams such as the TOEIC-Bridge exam, the Cambridge English Key Exam, and the Cambridge English Preliminary Exam to assess language proficiency across different educational levels. This is the case in Costa Rica and Uruguay while other countries either abstain from using exams altogether or administer them voluntarily like in Brazil and Mexico where these exams are elective.

The last aspect concerned teacher qualifications in Latin America. Cronquist and Fiszbein (2017: 5-6) mention that despite the high demand for English teachers in the region and the abundant teacher training opportunities, the overall quality of training is inconsistent and low. Moreover, Latin American teachers exhibit a level of language proficiency that falls considerably below the desired standards – which in most countries range from B2 to C2 on the Common European Framework of Reference (CEFR). The exceptions to this seem to be Costa Rica and Chile, where educators in these countries demonstrated levels of proficiency around B2 or B2+, while data gathered from other countries revealed that a substantial proportion of teachers performed either at or below the B2 level. Further, as part of Cronquist and Fiszbein's (2017: 4-6) examination of teacher qualifications, each of the government's requirements to regulate English teacher credentials was examined closely. It was found that in countries like Argentina, Chile, Ecuador, Peru, Colombia, and Uruguay, English teachers must adhere to the national standards of the English education program.

While Costa Rica and Panama lack national standards, their governments collaborate with national universities to help shape teachers' profiles and determine their eligibility as English teachers. Conversely, countries such as Brazil and Mexico lack established national guidelines for English teacher education programs.

This succinct overview of the language policies in Latin America only suggests that there is a need to enhance ELT policies in the region to make sure that students are equipped with the necessary skills to attain advanced English proficiency levels.

5.1. The role of English in Costa Rica

When talking about English language education in Costa Rica, it is essential to provide a historical backdrop to shed some light on the evolution of English teaching in the country since this field was molded by worldwide economic and political forces. It is important to mention, however, that even though Costa Rica's official language is Spanish, English is still spoken as a first language by 73% of Afro-Costa Ricans who are descendants of Jamaican and Antillean slaves brought to the country in 1870 to work on the construction of the Atlantic Railroad (Aguilar Sánchez 2018: 104). Additionally, their variety of English, called 'Creole', is spoken along the Caribbean coast of the country, mainly in the province of Limón. Aguilar Sánchez (2018) points out that this English variety has historically held a lower status in the country, leading many native speakers to discontinue its use and instead, adopt Spanish as their primary language. What's more, after 1948 when Spanish was established as the primary language of instruction and citizenship was granted to Afro-Costa Ricans, the demand for English schools in the province of Limón, which were predominantly run by Jamaican immigrants, diminished. Moreover, the Ministry of Education adopted a policy of sending teachers to Limón to teach Spanish instead of English. In spite of these changes, education in English persisted through Sunday schools and in Afro-Costa Rican households (Meléndez Chaverri & Duncan 1981).

Furthermore, as Chaves Carballo, Solano Campos, and Villalobos Ulate (2009: 58) discuss, the educational objectives and methodologies concerning the teaching of English in Costa Rica have evolved in line with the country's income-producing systems. What started off as a coffee-centered oligarchy, transformed over time due to the rise of tourism and multinational corporations. This shift created a supply and demand for English, which in turn

has played a pivotal role in shaping the educational policies of the country. According to Córdoba Cubillo, Coto Keith, and Ramírez Salas (2005), the teaching of English in Costa Rica started in the 19th century. More specifically, it was first standardized in 1825 at the 'Casa de Enseñanza Santo Tomás', a private university belonging to the Catholic Church famous for promoting the learning of English and French. This was predominantly linked to the economic interests of the Costa Rican government which played a major role in the country's development. Quesada Camacho et al. (2002) note that by the late 19th and early 20th centuries, many English and American companies had already established themselves in the country. Hence, these trade relations between Costa Rica and English-speaking countries contributed to the desire to learn English, as Great Britain controlled about 50% of Costa Rican coffee plantations, thereby fostering Costa Rica's economic growth.

Moreover, primary and secondary schools were founded in 1887, but it was not until 1901 that the teaching of English was made official in the country. Initially, English classes were taught only in secondary schools by foreigners, likely native speakers coming from the United States and other Costa Ricans who had previously studied in English-speaking countries or simply knew the language (Marín Arroyo 2012: 5-6). However, the initial training of English teaching educators in Costa Rica occurred at the Universidad de Costa Rica (University of Costa Rica) in 1954 and the first English teaching program was launched by the same university in 1957, whereas in 1973 the Universidad Nacional (National University) opened a faculty for literature and language sciences which became a key contributor to the education and training of Costa Rican professionals in linguistics, second language teaching, and translation (Chaves Carballo, Solano Campos & Villalobos Ulate 2009). Nevertheless, it was not until 1997 that the perspective of English shifted from being considered a 'special subject' akin to art and music to being acknowledged as a 'core subject' in the Costa Rican educational system. Cabrera and Ancker (1997) found that this shift occurred when students in secondary education were given the option to select the foreign language they wanted to focus on starting from the 10th grade (either English or French), and 90% of the students chose English over French. Hence, English was recognized as a basic and mandatory subject starting in primary education, setting Costa Rica apart as the sole Central American nation to offer English at this educational level (Córdoba Cubillo, Coto Keith, & Ramírez Salas 2005).

Further, throughout the 1990s, there was an increase in foreign investment firms in Costa Rica. Marín Arroyo (2012) notes that this resulted in curriculum modifications at both public and private colleges. This influx of foreign investment from companies such as Intel, along with the flourishing tourism, caused the establishment of numerous private language institutions, bilingual schools, and tertiary-level English programs. As of 2008, the government enacted several decrees that officially designated English education as a matter of national importance, and consequently, the 'Fundación Costa Rica Multilingüe' (The Costa Rica Multilingual Foundation) was created. Its aim is to enhance the population's foreign language proficiency, particularly that of English in primary and secondary education, in response to the nation's communication requirements.

Similarly, Aguilar Sánchez (2018) argues that nowadays, English serves as the primary language of instruction in numerous private, international schools and universities across the country. In line with this, some of these institutions offer comprehensive immersion programs encompassing all subjects in English, while others adopt a partial immersion approach, reserving a portion of subjects for English instruction. Besides, the proliferation of private schools, both Costa Rican and foreign, has not only addressed the issue of overcrowding in public schools but has also provided an alternative educational path for those with the financial means to afford it. This development has consequently exposed Costa Ricans to more English-speaking environments and, at the same time, has amplified the perception of English among Costa Ricans as a language associated with elevated social and economic status.

Nonetheless, the significance of the English language in contemporary Costa Rican society primarily revolves around its employment benefits, serving as a key incentive for many individuals to acquire proficiency. Despite ongoing efforts to promote English education, its current availability remains unequal. The most recent survey conducted by the National Institute of Statistics and Census of Costa Rica (henceforth INEC) in 2008 discovered that out of a population of 5 million, only 11% of the inhabitants above 18 years old were proficient in English, with an additional 1% in French. Likewise, Ramírez Varas and Abarca Garro (2018) found that individuals with English knowledge earn on average \$345 more per month than their non-English-speaking counterparts. Moreover, they earn \$2 per hour, work one hour less per week, and are more likely to enjoy benefits such as vacations, health insurance, and

year-end bonuses. However, despite these favorable conditions, the researchers reported that between 2005 and 2017 English comprehension reached a plateau, and not even younger students showed a significant upward trend in language proficiency (Ramírez Varas & Abarca Garro 2018).

This stagnation in language skills is further highlighted by a study from the Ministry of Public Education (2021: 11-21), revealing discouraging results in national language proficiency tests for students in primary and secondary education. By the end of high school, most students from public schools graduate with a beginner's level (A2), falling short of the Ministry of Education's expected exit profile, which mandates a minimum level of B1. In view of this, Ramírez Varas and Abarca Garro (2018) examined the impact of educational policies that had been implemented in the country to promote bilingualism, and even though there was increased coverage of English classes over time and the government allocated resources to enhance its teaching, this still did not translate into higher percentages of bilingual workforce. As a result, in 2016, the Ministry of Education approved a curriculum reform for English, which means that the country's goal is for students in the public system to achieve bilingualism by 2040 (Díaz Rojas 2022). Still, according to a 2017 report from the Research Center on Sustainable Human Development ('PEN' in Spanish) of the National Council of Rectors (CONARE), this goal of the Ministry of Education will not come without challenges, and it will not be feasible if public education continues as it has.

All in all, the public education system in Costa Rica currently faces many challenges regarding the limited presence of technology, weak coordination between the Ministry of Education and universities, and an unequal and outdated offering in the curriculum of universities that train English teachers (PEN 2017). This implies that upcoming professionals in the country will not only face limited opportunities for developing their language skills but will also find themselves misaligned with the demands of the 21st century, ultimately restricting their access to well-compensated bilingual job opportunities.

6. Research methodology

This study aims to explore the impact of out-of-class activities on the vocabulary development of adult learners in Costa Rica. In light of this, the main objective of this study is to investigate the extent of Costa Rican adult language learners' engagement in English-related activities outside of their classes and their motivations. Additionally, it aims to assess the time the students spent on these activities, identify the most common ones, and examine how factors like gender, age, and social status influence the learners' vocabulary knowledge.

Another objective is to evaluate the students' vocabulary size and provide insights to English teachers at a public university in Costa Rica, enabling them to better understand their students' passive and active vocabulary and potentially integrate more extramural activities into their teaching plans for the benefit of the students. Hence, the research questions to answer are the following:

1. Which extramural English activities do Costa Rican adult learners engage in and to what degree?
2. What are the reasons Costa Rican adult learners use extramural English activities?
3. What is the correlation between extramural English activities and the receptive vocabulary knowledge of Costa Rican adult learners?
4. What is the correlation between extramural English activities and the productive vocabulary knowledge of Costa Rican adult learners?
5. How do the gender and age of Costa Rican adult learners relate to their vocabulary knowledge?
6. How does the socioeconomic background of the learners relate to their vocabulary knowledge?

6.1. Participants and context

The study involved learners from 13 English courses offered by a language center at a public university in Costa Rica. Among these courses, four were standard courses designed for the general public aged 17 and above. The remaining nine courses were part of a scholarship program launched by CONARE.⁴ Each course had a duration of 14 weeks, comprising a total of 60 instructional hours. Among the 13 groups, five were comprised of beginners (A1-A2 proficiency level), three were at the pre-intermediate level (A2+/B1), four were at the high-intermediate level (B1+), and one was at the advanced level (B2/C1). All participants shared Spanish as their first language, and the majority of their English knowledge was acquired through traditional classroom-based instruction.

Initially, data was gathered from 160 participants who completed the first phase of the study, which involved the extramural English questionnaire and the receptive vocabulary test. During the second part of the study (PVLIT test), data was collected from 149 participants. Yet, upon careful data scrutiny, it came to my attention that certain students either left sections of the questionnaire incomplete, inaccurately copied their receptive test results, or were absent during the subsequent phase involving the productive vocabulary test. Consequently, these participants had to be excluded from the analysis. This adjustment narrowed down the sample to 119 participants who successfully participated in all three phases of the study.

In some instances, however, further refinement of the participant pool was necessary due to encountering errors in certain results. This was notably observed in the demographic information section, specifically related to the age at which participants started learning English (narrowing it down to 113 participants), as well as in the context of research question 6 (117 participants). The explanation for the exclusion of some participants will be presented in Chapter 7.

⁴ CONARE stands for 'Consejo Nacional de Rectores' (National Council of Rectors). It is composed of the five most important public universities in Costa Rica, and it is a significant governmental and educational organization responsible for overseeing and coordinating higher education in the country. The objective of the English courses offered by CONARE is to provide scholarships to students from various undergraduate programs so that they can learn the language as a complement to their studies.

6.2. Data collection

The research was conducted between February and May 2022. All of the English courses at the language center were held online either through Zoom or Microsoft Teams due to COVID-19 restrictions in Costa Rica. In order to obtain the university's consent and to explain the study's goals and potential benefits for the university, a prior online meeting with the language center coordinator was required. The English courses had varying durations, either two or four hours, depending on the day of the week.

However, due to conditions set by the language center coordinator, there was an allocation of between 30 minutes to one hour to work with the groups. Hence, due to these time constraints, the study had to be divided into two parts. During the first part, the students were presented with a questionnaire about their involvement in EE activities in their leisure time alongside a receptive vocabulary test (VLT). The questionnaire alone took approximately 15 minutes to complete, while for the VLT test, 30 minutes were needed, which amounted to a total of 45 minutes to complete the first part of the study. During the second part, the students were assessed on their productive vocabulary skills by taking the PVLt test, for which, a total of 60 minutes was needed.

6.2.1. Questionnaire

As mentioned above, in the first part of the study, the participants were asked to fill in a questionnaire about English in their free time,⁵ compiled in accordance with Dörnyei's (2003) guidelines for questionnaires in second language research. In addition, Schwarz's (2020: 422-431) questionnaire served as a reference and source of ideas to create my own questionnaire while adapting it to my specific research objectives and context. The Extramural English Questionnaire (hereinafter EEQ), was designed to gather information about students' EE practices during their free time, socioeconomic status, and linguistic background.

Furthermore, the EEQ was formulated in Spanish due to the students' varying levels of English, and it was made accessible through the website *soscisurvey.de*. Upon opening the questionnaire, students were asked to create a five-digit personal code as suggested by

⁵ A full overview of the items featured in both the original and translated versions of the questionnaire is available in the appendix (section 10.3).

Kearney et al. (1984) (cited in Dörnyei 2003: 94-95). As shown in Figure 3, the English instructions for the code are as follows:

My code:

____ 1st and 2nd letter of your name
____ 1st letter of your mother's name
____ month in which you were born (e.g. 05 for May)

For example: Maria, Ana, May= MAA05

Figure 3. Participants' anonymized code instructions in English

Dörnyei (2003: 95) suggests that when creating a personal code, participants should use specific elements unique to them, like their parent's initials, instead of random codes. This helps maintain anonymity and links their questionnaire to their vocabulary test results. Concerning the different parts of the questionnaire, it was divided into five parts: the first section consisted of general demographic information such as age and gender, both of these items were multiple-choice questions to facilitate the later comparability and ease of quantitative analysis, as well as maintain the participants' privacy. This means that for gender, three options were available: female, male, and other. In terms of age, the Statistical Office of the European Union (Eurostat) (2013) reports that in demographic and epidemiological calculations, age bands are commonly used. Consequently, the students were required to select theirs from an age band, namely 18-24, 25-34, 35-44, 45-54, 55-64, and 65 and over. The second part of the questionnaire involved four items related to their language background (e.g., when they started learning English), while section 3 inquired about the student's socioeconomic background. Section 4 surveyed participants' frequent Internet usage and general English leisure activities. In section 5, students were instructed to mark the reasons for using English during their free time.

Except for five questions, the majority of the EEQ's items were closed-ended, meaning they were either multiple-choice or rating-scale questions that did not call for any free writing from the participants. This type of format was chosen firstly to limit the time needed for filling in the questionnaire and secondly to reduce the impact of inconsistent answers as discussed by Dörnyei (2007). Besides being the most frequently used type of question in quantitative and statistical analysis, it allows for a better, more straightforward data

examination and comparison of the participants (Cohen, Manion, & Morrison 2017: 475). The only five open-ended items were 'clarification questions' as proposed by Dörnyei (2007: 107), meaning that these items required the participants to provide small bits of information like the name of a country they had previously visited and indicate how long they were there, name three apps or websites they used regularly, and indicate other reasons why they use English in their free time. Regarding question number 15, which included a rating scale to gauge the participants' level of agreement, it was decided to use a Likert scale since it is the most universal, versatile, and reliable method (Dörnyei 2003). More information on the type of Likert scale chosen for the second research question will be provided in section 6.2.

6.2.2. Vocabulary size tests

As it is evident from the literature mentioned in 3.3.2, there is no such thing as a perfect vocabulary size test. Thus, the selection of the VLT and PVLТ for this study was primarily driven by practical considerations due to the COVID-19 situation. This decision was influenced by both the shift to online English courses at the institution where the study was conducted and my relocation from Costa Rica. Further, the availability of these tests in an online format, their ease of scoring and interpretation, plus their relatively quick completion time played a crucial role in their selection.

For the VLT, the updated version (version 2) developed by Schmitt, Schmitt, and Clapham (2001) was used. After the participants had created their personal ID code for the EEQ, they were provided clear instructions in Spanish on how to access the VLT test. Once participants obtained their test results, they were instructed to copy and paste them into the questionnaire.

Concerning the PVLТ, this test was chosen because it is easy to administer, score, and interpret. As with the EEQ and the VLT, this test was also made accessible through the website *soscisurvey.de*. The test instructions were given in Spanish, and, for better data linkability, the participants were asked to input again the ID code they had created for the EEQ. After the test's instructions had been clarified, the students were given an example on how to complete it.

6.3. Data processing

After the data from all three instruments was collected, a data file was created and numeric data from the closed items on the questionnaire were given a code number and entered into SPSS (Version 29.0, IBM Corp. 2022). For the analysis of socioeconomic background variables, such as the parents' highest level of education, the decision was made to standardize participants' data by aligning it with the official education levels outlined by the International Standard Classification of Education (ISCED) from the OECD in 2023 for Costa Rica.

Another variable included in the questionnaire to assess SES in terms of material possessions was 'home resources' (question 10). This was adopted as an alternative to including a direct question about family income, as such inquiries can be considered intrusive, as noted by Brese and Mirazchiyski (2013: 43). Moreover, this variable is a commonly used indicator for family income, and it aligns with the student questionnaire used in PISA in which Costa Rica participated in 2018 (OECD 2019). Hence, the question related to home possessions encompasses six items: the number of cell phones, TV sets, computers, tablets, iPads, gaming consoles, and modes of transportation available in the household.

As for the two open questions in the EEQ, which were question 12 (3 most used apps/websites), the participants gave very similar answers, and for this reason, codes were generated for those apps or websites that were repeated. Finally, to analyze the data, a combination of SPSS and Excel was used.

VLT

Regarding the scoring method, no changes were made to the test, and the scoring system remained the same as in the original version. Specifically, one point was awarded for every correct matching of a word with its definition, resulting in a total of 30 points per frequency level and 150 points for the entire test. Moreover, in line with Schmitt, Schmitt, and Clapham (2001: 67), students needed a minimum score of 26 points (87%) to master a frequency level. For example, achieving 26 points out of 30 at the 2,000-word level indicates proficiency in the most common 2,000-word families in English. In addition, the test is available online on Cobb's website *lex tutor.ca* (Cobb, n.d.) and the scores from each level were calculated automatically by the program.

PVLT

The test version used was the same one referenced in Laufer and Nation (1999: 46-48). As specified in section 3.3.3, each of the five frequency levels contains 18 items, totaling 90 items. Nonetheless, to ensure that more advanced students would not feel unchallenged by the high-frequency sections of the test, and that lower proficiency students would not find the low-frequency sections too difficult to continue, slight modifications were made to the format of the PVLT (Zimmerman 2004: 26). In other words, questions were rearranged so that the items from each of the five frequency levels were combined as follows: The first question originated from the 2,000-word level, the second from the 3,000-word level, the third from the 5,000-word level, the fourth from the UWL, the fifth from the 10,000-word level, and this pattern continued until all 90 questions were included.

As for the scoring method, the items' responses were deemed correct if the participants provided the accurate word. Minor issues such as grammatical errors (e.g., using past tense instead of present tense) or spelling mistakes (as long as they did not significantly alter the word) were not penalized. However, no points were awarded if the participants responded in Spanish. Furthermore, a slight adjustment was made to the test's scoring. Laufer and Nation (1999: 41) mention that to successfully master a level, learners should score around 15 or 16 points out of 18 (85% to 90%), with 15 points being the preferred criterion. The percentage score provides a rough indication of how many words a learner knows for each level. For example, if a student scored 9 points out of 18 at the 3,000-word level, it would be equivalent to 50%, indicating the student knows approximately 500 words out of the 1,000 words in that level.

Nevertheless, upon reviewing all the tests, it became evident that out of the 119 participants, only seven managed to pass the 2,000-word level with 15 points. Hence, after a thorough assessment and, in line with Laufer and Nation's (1999: 43) adjusted criterion, the minimum passing score was revised to 12 points out of 18. Afterward, all participants' EEQ responses and test scores were collected, verified, and entered into separate SPSS and Excel spreadsheets for analysis.

7. Analysis and discussion

The following chapter presents the outcomes of the statistical methods applied to analyze the questionnaire and vocabulary tests. The first two sections will center on descriptive information about the participants, including their demographics, linguistic and socioeconomic backgrounds, as well as their habits related to digital media consumption. From section 7.2 onward, the examination will focus on the findings pertinent to each research question, addressing and analyzing them individually in consideration of other studies and the previously reviewed literature.

7.1. Participant data

7.1.1. Demographic information

Out of the 119 total participants, 68% identify as female, while 32% identify as male. Interestingly, the 'other' gender option provided in the EEQ was not selected by any participant. Moreover, a substantial portion of the participants (43.7%) falls within the 18-24 age bracket, with the oldest participants being 70 and 80 years old at the time of the study.

Table 1. Demographics of study participants

Characteristic	Items	Frequency (N)	Percent
Gender	Female	81	68%
	Male	38	32%
Native language	Spanish	119	100%
Age groups	18-24	52	43.7%
	25-34	43	36.1%
	35-44	20	16.8%
	45-54	2	1.7%
	55-64	0	0%
	65+	2	1.7%

N=119

7.1.2. Onset age for learning English

During the quantitative analysis of question number three, six students were excluded due to missing answers, leaving 113 participants for analysis. In addition, given the participants' similar age ranges for the onset of English learning, they were categorized into five distinct groups based on stages of human development, drawing from Erikson's (1982) theory of psychosocial development. This categorization eased the coding process and subsequent analysis as illustrated in the following figure:

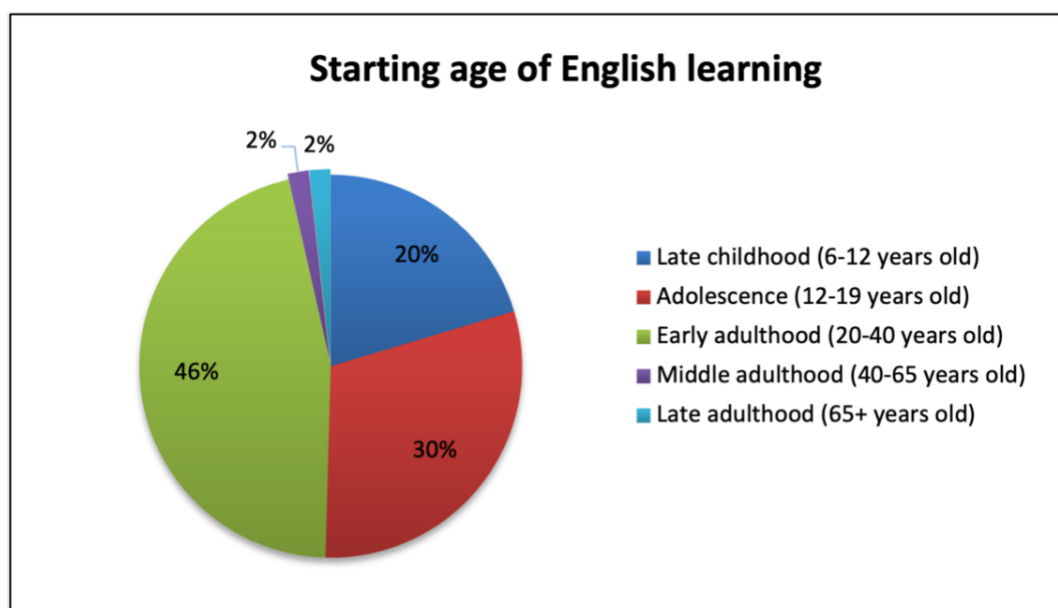


Figure 4. Age at which English learning began, N=113

Figure 4 shows that the majority (46%) began studying English in their early twenties or later. Even though English is a mandatory subject at school, some participants mentioned starting to take English seriously during university studies or after enrolling in private courses. The questionnaire did not inquire about participants' birthplace or primary/secondary education location, which could influence responses, especially for those from neighboring countries. Conversely, 30% started learning English in adolescence (high school), while 20% began exposure to English in kindergarten or primary school. The remaining 4% started much later, between ages 40 to 49 and 70 to 77.

Travels abroad

Questions four, five, and six were incorporated into the EEQ to gain insights into the participants' experiences regarding travel to English-speaking destinations, either for leisure

or extended periods of living. Table 2 below provides a visual representation of this data and reveals that more than half of the participants (87.4%) had not yet visited English-speaking countries, while 12.7% (15 individuals) have had the opportunity to do so. Among those, 13 reported trips to the United States and two to the United Kingdom.

Table 2. Exposure to English while traveling abroad

Characteristic	Items	Frequency (N)	Percent
Number of holidays in English-speaking countries	never so far	104	87.4%
	1 to 3 times	9	7.6%
	4 to 6 times	4	3.4%
	more than 6 times	2	1.7%
Use of English on holiday in non-English-speaking countries	never so far	114	95.8%
	1 to 3 times	4	3.4%
	4 to 6 times	1	0.8%
	more than 6 times	0	0%

The data presented in Table 2 discloses as well that the majority of students had not encountered the necessity to use English for travel purposes. However, a small portion (approximately 4.2%) reported instances of using English in countries where it is not the official language, such as Israel, the Czech Republic, Germany, Iceland, Japan, Switzerland, Greece, Italy, and France. Although the extent of their English usage during these trips remains uncertain, it is likely they received some English input and gained some practice.

On the other hand, out of the 119 students surveyed, 18 reported having traveled to other Latin American countries where Spanish is the primary language and English was not required. When it comes to residing in a foreign country for over three months with the need for English use, only two participants had such experiences. One spent two years in New York, while the other lived in the United States for five months without specifying the exact location. Again, the extent of their language immersion or frequency of contact with native speakers is unclear.

7.1.3. Socioeconomic background

Even though the EEQ questions for this section were modeled after the PISA questionnaire, the results of the 'PISA index of economic, social, and cultural status' for Costa Rica are not publicly available. Therefore, my data will be compared with the 2022 census results from the National Institute of Statistics and Census of Costa Rica. Further, section 7.7 will delve specifically into the analysis of the correlations between the participants' receptive and productive vocabulary knowledge and the SES variables described here.

Academic background of the participants

Starting from question seven in the EEQ, educational levels were aligned with Costa Rica's formal education system, comprising preschool, primary education, secondary education, and tertiary education as defined by the Ministry of Education (MEP 2018). 'Preschool' was excluded from the questionnaire, while 'incomplete secondary school' was included because basic general education in Costa Rica is compulsory from ages six to 14, covering primary school and the initial three years of secondary education. Additionally, 'incomplete university education' was included to differentiate between participants still pursuing their bachelor's degrees and those who have already obtained them.

As for the analysis, educational levels were not converted into ISCED levels as it was deemed unnecessary to require participants to specify their degree levels (BA, MA, PhD). It's also worth noting that the OECD first mapped the Costa Rican education system into ISCED levels in 2023, after this study was conducted. Therefore, among the 34 participants who completed university education, it can be assumed they hold at least a bachelor's degree.

Table 3. Participants' educational background

Characteristic	Items	Frequency (N)	Percent
Highest level of education	complete primary school	1	0.8%
	incomplete secondary school	1	0.8%
	complete secondary school	21	17.6%
	complete university education	34	28.6%
	incomplete university education (currently finishing their degree)	62	52.1%
Private primary school or high school	no	102	85.7%
	yes	17	14.3%

N=119

The findings in Table 3 reveal that slightly over half of the participants are currently in the process of completing their university studies, which is unsurprising given that the study was conducted at a university. This contrasts with the OECD's report on Costa Rica, which indicates that 45% of individuals do not complete upper secondary education, a figure higher than the OECD average. However, in my study, the demographic breakdown differs, with 17.6% of participants having completed only secondary education and a total of 1.6% having completed only primary school.

Even though these percentages are relatively lower than the reported 45% for Costa Rica, they still indicate that there are persistent challenges in achieving upper-secondary education. An intriguing aspect, raised by certain participants who completed only primary and secondary school, emerged during question 14 (item 9) of the EEQ, where they shared insights into their reasons for engaging in EE activities. They expressed that their primary motivation for learning English stemmed from its necessity in their current job, aspirations for better job opportunities, or a desire to travel abroad. On a different note, the data on attendance at private primary or secondary schools reveals a clear trend. A significant portion (85.7%) of the majority of participants come from public schools, with only 14.3% of the participants having attended private schools.

Parental highest educational attainment

As previously outlined in section 6.3, parental education was categorized according to the official ISCED classification of the Costa Rican educational system provided by the OECD (2023).⁶ This classification divides mandatory basic education into cycles: the first and second cycles correspond to primary school (grades 1st to 6th - ISCED 1), while the third cycle pertains to secondary education. This last cycle is further divided into two ISCED levels (ISCED 2 and ISCED 3) due to the mandatory three-year duration within the five- or six-year secondary education period. Consequently, ISCED level 2 (covering grades 7th to 9th) corresponds to the questionnaire item 'incomplete secondary education', while ISCED level 3 (encompassing grades 10th, 11th, and 12th of academic or technical high school) corresponds to the questionnaire item 'complete secondary education'.

⁶ The complete diagram with the different ISCED levels is available at https://gpseducation.oecd.org/Content/MapOfEducationSystem/CRI/CRI_2011_EN.pdf (Education GPS, OECD 2023).

With regard to the item 'complete university education', participants were not asked to specify the type of university degree their parents had achieved. Thus, it can be assumed that the parents clustered into this category possess at least a bachelor's degree corresponding to ISCED level 6 (BA program).

Additionally, the questionnaire included an option to specify if parents had an incomplete university education. As there is no corresponding ISCED level for this, it was determined to categorize individuals within this group (5 mothers and 6 fathers) as ISCED level 3 (i.e., complete secondary education). This choice is based on the requirement of a high school diploma as a prerequisite for university admission.

Table 4. Parental highest educational level categorized according to ISCED levels

Characteristic	ISCED levels	Frequency (N)	Percent
Mother	ISCED level 1 (primary education)	57	47.9%
	ISCED level 2 (first 3 years of compulsory secondary education)	26	21.8%
	ISCED level 3 (remaining 2 or 3 years of secondary education)	23	19.3%
	ISCED level 6 (BA program)	13	10.9%
Father	ISCED level 1 (primary education)	60	50.4%
	ISCED level 2 (first 3 years of compulsory secondary education)	17	14.3%
	ISCED level 3 (remaining 2 or 3 years of secondary education)	27	22.6%
	ISCED level 6 (BA program)	15	12.6%

N=119

Table 4 reveals the diverse educational backgrounds of participants' mothers and fathers. Approximately 48% of mothers completed only primary education, while 21.8% did not finish secondary school, and 19.3% successfully completed it. Additionally, 10.9% attained at least a bachelor's degree. Comparing this data with information from the National Institute of Statistics and Census of Costa Rica (INEC 2021), it is evident that my data regarding mothers' education slightly differs from the Costa Rican average. Specifically, INEC reports that 14.1% of Costa Rican mothers have completed primary school, while 30.1% have incomplete secondary education (ISCED level 2), 21.5% completed secondary education, and 16.1% obtained a university degree.

In my sample, fathers also display a similar pattern, with around 50.4% having completed only primary education, 22.6% holding a high school diploma, and 14.3% completing only the first three years of secondary education. In addition, 12.6% have attained higher education. This suggests that the educational level of the participants' fathers surpasses the Costa Rican average. INEC data (2021) indicates that 7.60% of Costa Rican fathers have completed primary school, 9.85% have incomplete secondary education, 7.98% finished compulsory school, and 9.91% have higher education.

The disparity in educational percentages between fathers and mothers reported by the INEC is primarily attributed to a significant amount of missing data on the fathers' side (59.2%). Therefore, when assessing a family's socioeconomic status in Costa Rica, INEC typically relies on data related to only the mother's educational level due to the substantial absence of fathers in Costa Rican families (Budowski & Rosero-Bixby 2001).

Home possessions

Another indicator of socioeconomic status currently used in the PISA tests to represent a family's income is home possessions (Brese & Mirazchiyski 2013: 43). Table 5 outlines the household items surveyed in the questionnaire, along with the percentage of students who indicated their presence and quantity at home.

Table 5. Participants' household possessions

Household items	0	%	1	%	2	%	3 or more	%
Cell phones	0	0%	22	18.5%	29	24.4%	68	57.1%
TV sets	10	8.4%	45	37.8%	40	33.6%	24	20.2%
Computers (laptops, netbooks, etc.)	2	1.7%	53	44.5%	33	27.7%	31	26.1%
Tablets/iPads	80	67.2%	29	24.4%	10	8.4%	0	0%
Games console (PlayStation, Xbox, etc.)	77	64.7%	29	24.4%	7	5.9%	6	5.0%
Means of transport (cars, motorcycles)	52	43.7%	39	32.8%	25	21.0%	3	2.5%

N=119

In keeping with 21st-century technological trends, cell phones outnumber TV sets and tablets in participants' households, with every student owning a cell phone, and 57% of

households having three or more. Desktop computers or laptops are in almost 45% of homes, while TV ownership is reported by only 45 out of 119 participants. The prevalence of computers, cell phones, and internet-capable consoles likely contributes to this pattern, suggesting ample opportunities for extramural English usage. While my questionnaire did not cover various factors assessed by the INEC to determine family material wealth (e.g., home condition, ownership or rental status, access to potable water, etc.) intriguing variations were observed when comparing them to broader population averages. The INEC census (ENAH0 2022) reports a 96.6% cell phone ownership rate, with 37.6% having more than 2 cell phones, aligning with my sample. However, TV ownership in my sample was lower than the national average of 94.4%, and computer ownership was comparable to the national rate of 47.4%. Tablet ownership is low nationally (12.8%), reflected in my findings, where over half of the participants reported having none.

Nonetheless, as mentioned in INEC's report, technology ownership is not associated with the quality of housing but rather with its geographic location since in urban slums, paying for cable television services is part of the fixed monthly expenses in a large number of households (ENAH0 2022: 47-49). Finally, transport ownership in Costa Rica shows lower percentages; 41.4% own a car, and about 14.0% have a motorcycle, compared to my participants, of whom 43.7% own either a car or a motorcycle, reflecting a similar ownership rate to the national average. This might be attributed to the country's extensive transportation network, where the public transit system is efficient and affordable, regardless of the infrastructure not being fully developed.

In sum, despite signs of lower socioeconomic status in parental educational attainment, my sample demonstrates positive aspects. Participants' highest educational attainment surpasses that of their parents, with over half currently pursuing university studies and 34 out of 119 already holding a university degree. Household possession rates also suggest socioeconomic advantages and access to various media equipment that can be used for extramural English activities.

7.1.4. Digital media consumption

Information provided on question 11 of the EEQ indicates that over 68.9% of participants dedicate more than five hours per day to internet surfing, with 15% allocating about three to four hours daily. Merely six participants disclosed spending one to two hours daily online. A comprehensive presentation of the results is available in Table 6 below.

Table 6. Estimates of daily internet usage

Daily web browsing time	Frequency (N)	Percent
1 to 2 hours	6	5.0%
2 to 3 hours	13	10.9%
3 to 4 hours	18	15.1%
more than 5 hours	82	68.9%

N=119

The questionnaire also gathered data on the participants' most frequently used websites or applications. Further, responses from two participants were missing for this question. Figure 4 below illustrates that the most popular social media platform is Facebook, whereas the most accessed platform for online videos and music is YouTube. It can be seen that both of them share the top spot, each being reported by 24% of the participants.

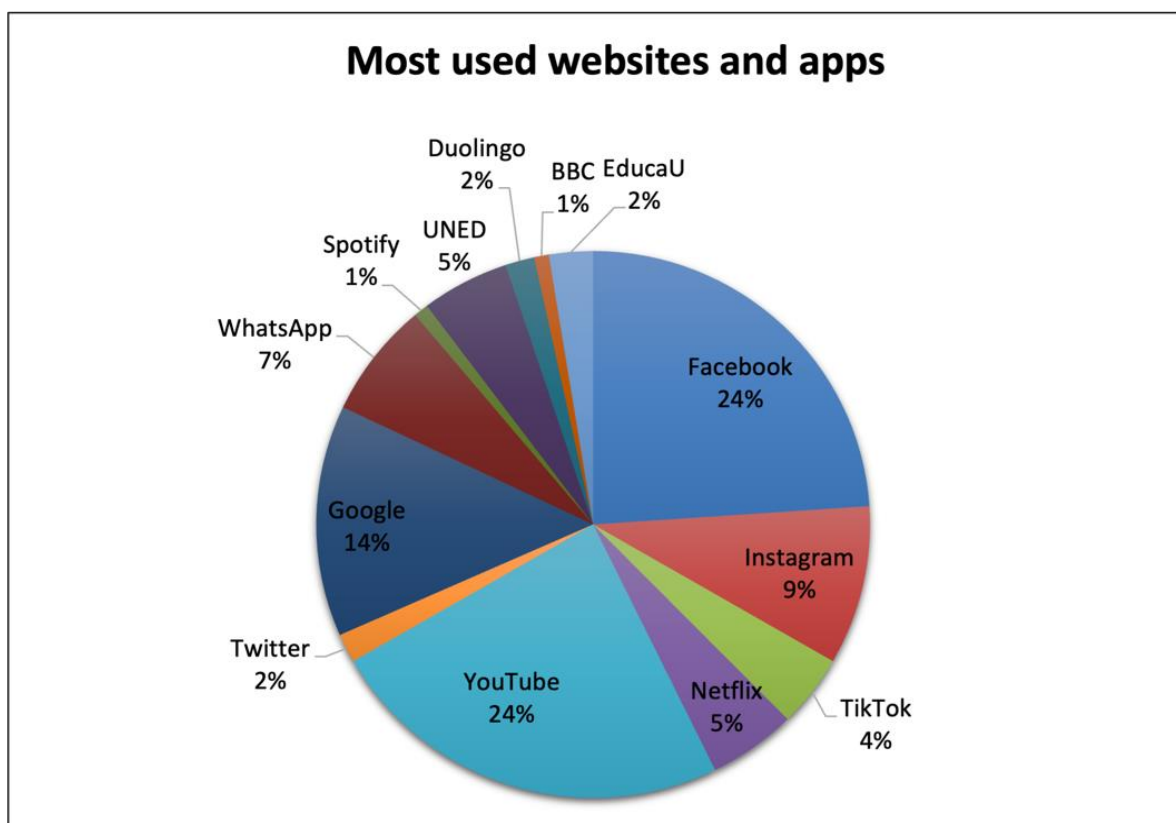


Figure 4. Most-visited sites and apps (N=117)

Likewise, following closely in second place is the search engine Google, used by 14% of the participants. Instagram holds the third position, accounting for 9% of participants who reported its usage, trailed by WhatsApp with 7%, while Netflix and the university's website (UNED) both have a user percentage of 5%. Other social media applications like TikTok and Twitter do not appear to be as favored among participants, which aligns with expectations considering their age range. Moreover, the data highlights that students allocate their free time to activities like browsing news sites such as the BBC, listening to music or podcasts through platforms like Spotify, and engaging with language learning applications such as Duolingo and the university's distance learning platform 'EducaU'.

The findings thus far indicate that, despite the majority initiating their English learning journey in their twenties or later and most of them not having had the opportunity to visit English-speaking countries, the students possess abundant access to diverse online media platforms and devices at home. This access enables them to engage in Extramural English during leisure hours, a practice they consistently incorporate into their daily routines.

7.2. Frequency of extramural English activities

From this section onwards, the main research questions of this thesis and the data presented in the next two sections will be addressed and examined through descriptive statistics. To start, the first research question is formulated as follows:

- RQ1: Which extramural English activities do Costa Rican adult learners engage in, and to what degree?

Based on the answers obtained from question 13 of the EEQ, the following figure provides a comprehensive overview of the participants' engagement in various language-related activities:

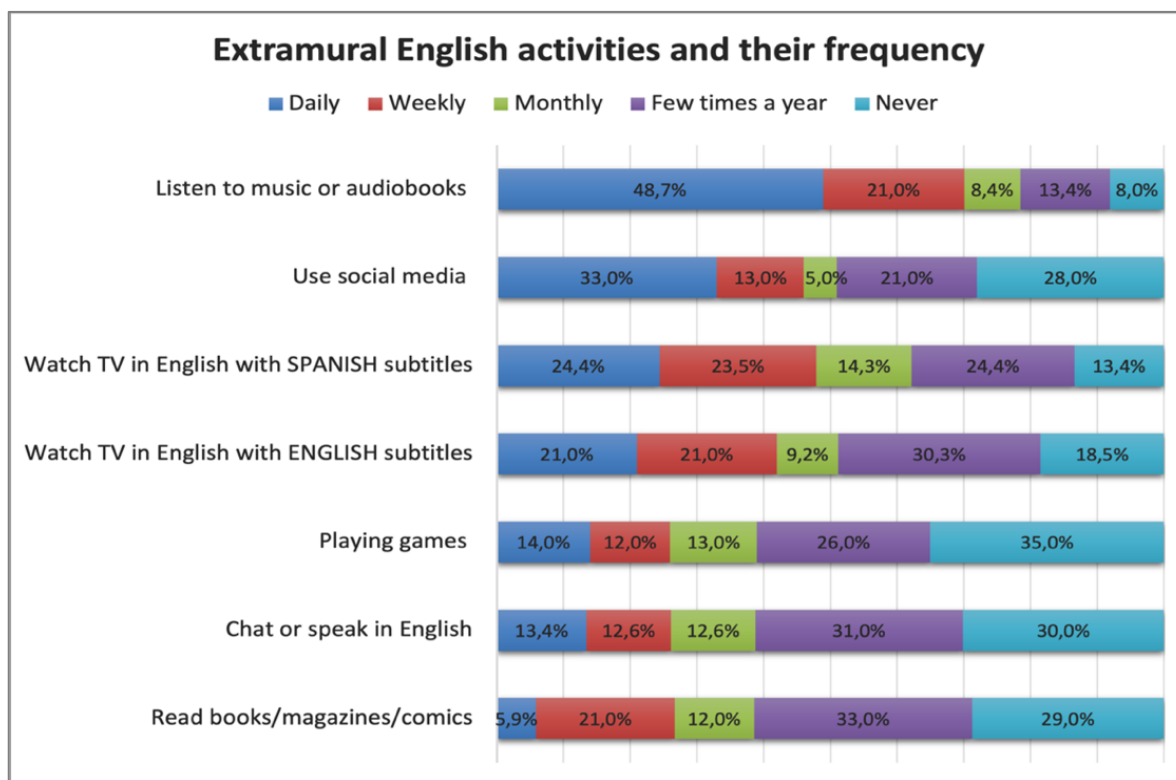


Figure 5. Frequency of EE activities

The results illustrated in Figure 5 depict diverse engagement patterns among the participants. According to their responses, listening to music, audiobooks, and podcasts in English emerges as the most frequent extramural activity, with 58 students (48.7%) engaging in it daily. These numbers indicate a consistent integration of English auditory content into their daily routines. As for weekly engagement, this remains substantial at 21%, while only 8.4% participate in it monthly. Further, only 21.4% of the participants reported infrequent or no engagement at all with music or audiobooks throughout the year, although there is a prevalent daily interaction with English content on digital platforms, as the second most common activity indicates. A total of 33% use social media on a daily basis, and weekly engagement, although lower at 13%, still reflects a noteworthy frequency. Moreover, sporadic engagement patterns are observed compared to daily and weekly activities. Specifically, 26% of the students use social media monthly or a few times a year, but it is interesting that 28% have reported never using them.

Moving on to TV-watching habits, even though the shows or movies watched are mainly in English, there is a preference for content with native language support. As the data shows, most of the students prefer Spanish subtitles, whereby 24.4% watch English TV shows and

movies with Spanish subtitles daily. Weekly and monthly engagement levels remain close at 23.5% and 14.3%, respectively. This contrasts with watching TV with English subtitles, where daily engagement is slightly lower at 21% but peaks at 30.3% a few times a year. Conversely, when examining other activities where an active engagement with the English language is involved, such as gaming, chatting, or speaking, it is observed that there is a general trend towards less frequent engagement, with 35% and 30% of the participants choosing to never participate in them. This could be due to the age of the participants since gaming, for example, tends to be more popular among the younger population. Lastly, reading books, magazines, and comics in English appears to be the least frequent extramural English activity, with only 5.9% engaging in this activity daily and a significant 29% indicating never engaging in reading activities. Weekly engagement, however, is more prevalent at 21.0%, while 33% reported reading English books only a few times a year.

In summary, the students demonstrate different patterns of engagement in EE activities, with three activities being the most prevalent ones, namely listening to music, using social media, and watching TV in English with Spanish subtitles, which showcase daily or weekly engagement for a substantial portion of the sample. Hyland (2004), Pill (2001), and Knight (2007) found similar trends in their research, with adult participants commonly preferring receptive activities such as reading, watching films, and listening to music as their primary sources of English outside the classroom. Regarding the use of social media among participants in my study, the findings can be compared with the media consumption patterns observed in younger learners in prior studies (e.g., Schwarz 2020; Sundqvist 2009), given that the majority of my participants fall within the age bracket of 18-24, such habit was also to be expected. In these studies, the use of the Internet and social media emerged as one of the prevalent EE activities.

In contrast, many students demonstrate occasional or irregular participation in activities that require active language use, such as gaming or communicating with others in English. Schwarz (2020) similarly observed that gaming was one of the least common extramural English activities among younger students. This finding is intriguing, particularly given the extensive research highlighting the benefits of gaming for L2 learning (Sundqvist 2009; Sylvén & Sundqvist 2012, 2014; De Wilde & Eyckmans 2017; De Wilde, Brysbaert & Eyckmans 2020).

As for reading, which is considered one of the most essential extramural receptive activities for acquiring vocabulary, is the least popular among the participants. Overall, the ranking of these findings is, thus to some extent, comparable to the results of Sundqvist (2009), Kuppens (2010), and Schwarz (2020). Consequently, one could assert that the level of popularity of EE activities among the younger students from the aforementioned studies and the group of adults in this sample is nearly identical.

7.3. Motivations for extramural English engagement

After determining the predominant EE activities and the amount of time that students allocate to them during their leisure time, the focus now turns to comprehending their underlying motivations. This objective is addressed through the formulation of research question 2.

- RQ2: What are the reasons Costa Rican adult learners use extramural English activities?

The concluding section of the EEQ comprised eight statements that participants assessed using a four-point Likert scale. The decision to employ a four-point scale, as opposed to the conventional five or seven points, aimed not only to simplify the response selection for students but also to make the questionnaire quicker to complete and minimize potential confusion. Additionally, following the recommendation of Dörnyei and Taguchi (2009: 37), using an even number of answer options is preferred in order to discourage participants from choosing neutral or extreme positions, as the neutral stance may not generate a significant evaluative response and some participants might select the middle option to opt out of participating.

Regarding the content of the items in question 14, the reasons for engaging in EE activities varied and encompassed personal interests, international connections, work or education motives, and eagerness to learn the language, among others. The responses to the eight statements presented in the EEQ were organized by their frequency and delineated in Figure 6.

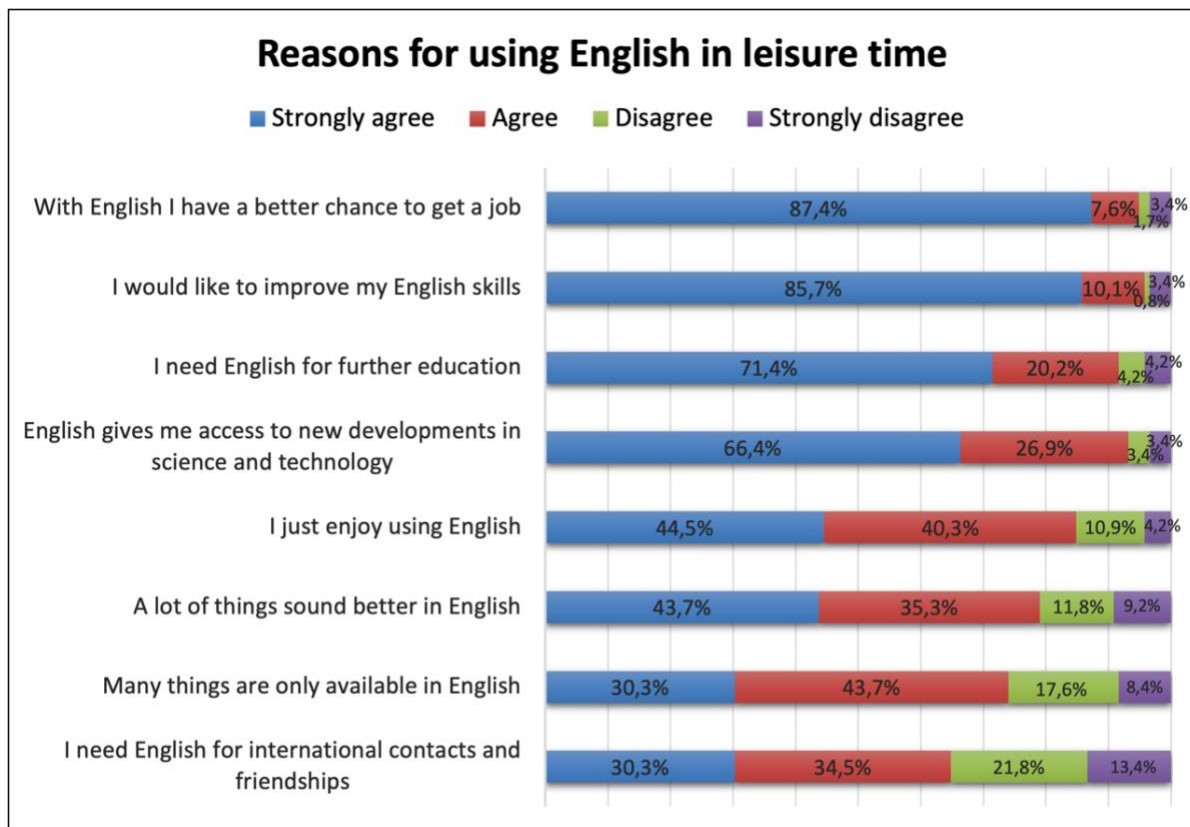


Figure 6. Reasons students engage in EE activities in their free time

As seen by the graph, participants' main reasons for using English in their free time are mainly related to improving their quality of life through self-improvement. The highest percentage of respondents, specifically 104 students (87.4%), strongly agreed that learning English increases their chances of getting a job. Following closely behind is the desire to improve their English skills (85.7%), and those who need English for further education (71.4%). These findings suggest that the participants share a strong conviction that learning English is beneficial for both their academic and professional goals. These results align with Schwarz's (2020: 220) observations, showing that nearly 80% of her participants used English to enhance their skills, while 73% expressed enjoyment in using the language.

Moreover, a significant number of people (66.4%) also agreed that English gives them access to new developments in science and technology. This is consistent with the fact that English is a dominant language in many fields including the academic one (Berns 2007). In addition, over 44% of respondents indicated they simply enjoy using English, highlighting the potential for leisure activities in English to be intrinsically motivating, beyond just practical benefits.

In contrast, less than half of the respondents disagreed with any of the reasons listed. The lowest percentage of disagreement (0.8%) was for the statement "I would like to improve my English skills," which further reinforces the importance of self-improvement highlighted earlier. Disagreement was slightly higher for "many things are only available in English" (17.6%), "a lot of things sound better in English" (11.8%), and "I just enjoy using English" (10.9%). The highest disagreement (21.8%) was for the statement "I need English for international contacts and friendships". This implies that the way individuals view the usefulness of incorporating EE activities into their leisure time is highly dependent on their preferences. While some people can find English to sound more appealing than Spanish, others could place more value on advantages for their careers or simply enjoy using Spanish for leisure activities.

In general, my sample indicates that adult students are more focused on the potential opportunities the English language could provide in their future, and this is in line with the examination of the role that English plays in contemporary Costa Rican society, plus the global position of English as a lingua franca that allows worldwide communication as discussed in Chapters 2 and 5. Finally, an open-ended item labeled 'I have another reason' (item 9) was added at the end for participants to write other reasons if desired. Only 14 people responded to this question, and their answers largely revolved around similar themes. Some cited their interest in certain career paths (such as tourism, linguistics, and translation) as motivation for learning English. Others mentioned a necessity to work with specific tools at their jobs where the literature available is only in English. Some indicated personal reasons, such as being retired and viewing language learning as a pastime, while others expressed a desire to learn English to relocate abroad.

7.4. EE and receptive vocabulary

This section will present the results related to the correlations observed between the participants' extramural English activities and their receptive vocabulary knowledge. To address this, research question 3 was formulated:

- RQ3: What is the correlation between extramural English activities and the receptive vocabulary knowledge of Costa Rican adult learners?

Although the primary focus of this thesis was not to present the participants' vocabulary size estimates but rather to explore the correlations between their extramural English activities and their passive and active vocabulary knowledge, it is essential to acknowledge and explain this information, as well as the methods used to derive the vocabulary size estimates since one of the aims of this study was to provide a thorough report to the English teachers about their students' receptive and productive vocabulary size. Therefore, research questions 3 and 4 will be subdivided into two sections: In the first part, the students' receptive (RQ3) and productive (RQ4) vocabulary sizes will be outlined, clarifying the approach employed to obtain these measurements.

Part 1: Participants' receptive vocabulary size

As a reminder of the test scoring, matching every word with their correct definition was awarded one point, meaning that for each frequency level, students could achieve 30 points (and a total of 150 points for the entire test). Also, to be able to pass a level successfully, they needed to score a minimum of 87% (i.e., 26 points out of 30 per level), as pointed out by Schmitt, Schmitt, and Clapham (2001: 67).

Further, to get an estimate of the students' passive vocabulary size for every frequency level, Nation's formula (1990: 76), was employed, as cited in Agustín Llach (2016: 227): "Vocabulary size = N correct answers multiplied by total N words in the dictionary (the relevant word list) divided by N items in test". For example: 3000-word level ($16.2 \times 1,000 = 16,200/30 = 540$ words).

Table 7 displays the average number of correct answers scored by the 119 participants involved in this study across the five frequency bands of the VLT test, irrespective of their gender. The maximum score at every frequency level was 30 and the minimum was 0 for all of the levels.

Table 7. Results for receptive vocabulary level

	Number of word families within each frequency level	Mean	Total word families known
2000-word level	2000	20.9	1393
3000-word level	1000	16.2	540
5000-word level	1000	15.4	513
AWL	570	17.6	334
10K-word level	1000	6.9	230

N=119

Zeroing on the level with the highest score, that is, the 2,000-word frequency band, as can be seen in the table, the average score is 20.9. By applying Nation's formula, it becomes apparent that the student's overall receptive vocabulary for this level falls below 2,000 word families. Specifically, the students exhibit a vocabulary size of 1,393-word families. Besides, from level 3,000 to 10,000, it can be seen as well that the total number of word families known by the students does not even reach 1,000. Going back to the 2,000-word level, the following graph provides a visual representation and summary concerning the distribution of points achieved by participants.⁷

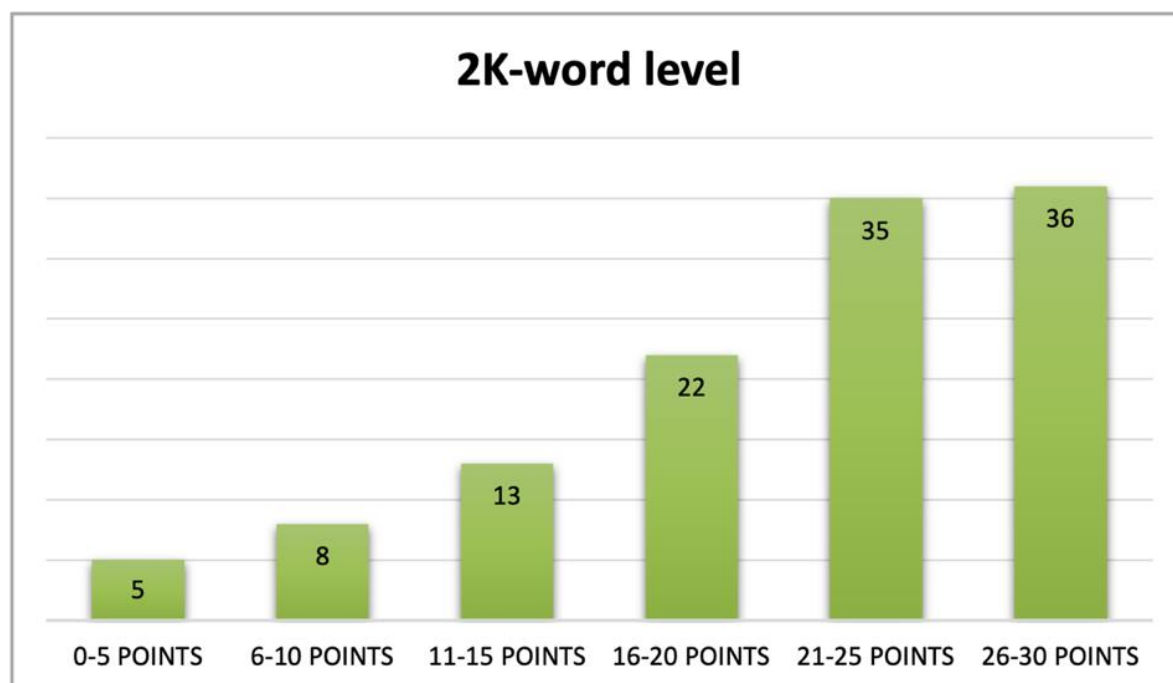


Figure 7. Frequency distribution of test scores for the 2000 level

⁷ For the sake of brevity, the focus will be on presenting the graphs for the frequency levels with the highest mean scores, primarily the 2,000-word level and the academic vocabulary level.

The results from this level show that five students achieved scores between 0 and 5 points, eight students scored between 6 and 10 points, 13 students scored between 11 and 15 points, 22 students scored between 16 and 20 points, and a total of 71 participants obtained scores between 21 and 30 points. In summary, among the 119 students who participated in the test, only 30.2% (36 participants) successfully attained the minimum score of 26 points required to pass the 2,000-word level. This success rate is relatively low, particularly when considering that, out of the 13 participating groups, only 5 were classified as beginner level, with the remaining groups expected to be at the B1 or B2/C1 level, as per the university's language program.

Furthermore, when we convert the test scores obtained (0-30 points) on the 2,000-word frequency level into the total number of word families known using Nation's (1990) formula, it becomes evident that 59% of the participants possess a receptive vocabulary ranging from 1400 to 2000 word families. This is depicted more clearly in the pie chart below.

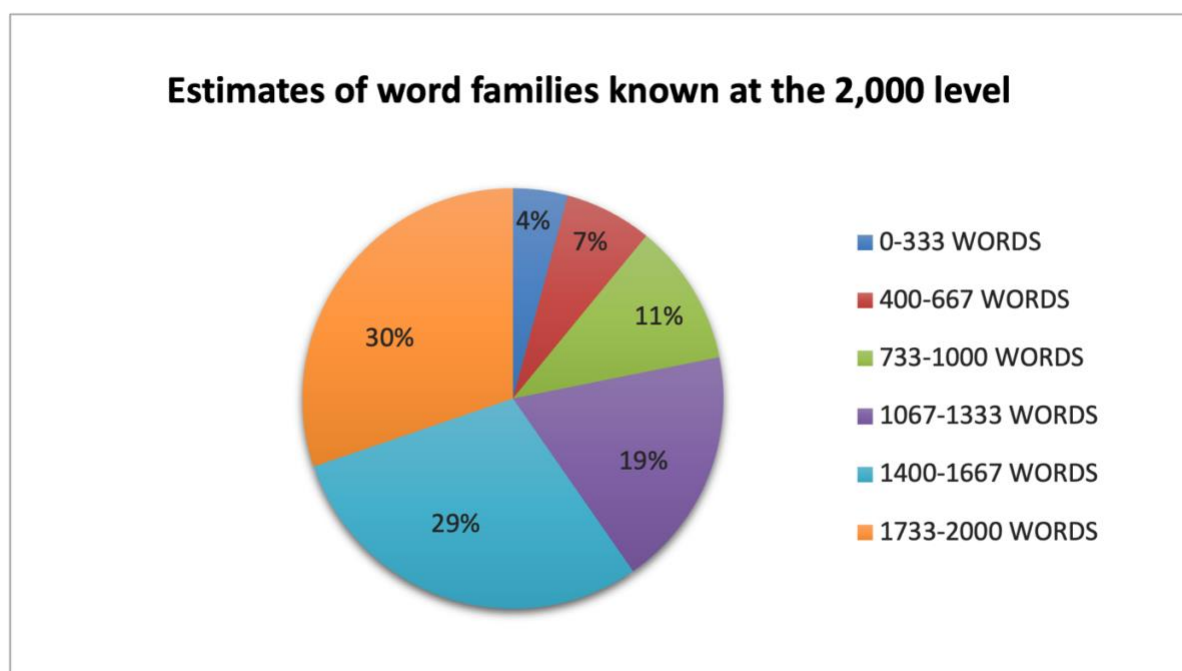


Figure 8. Estimates of word families known at the 2000-word level

According to Figure 8, only 30% of the participants fall into the highest segment, indicating that out of the 119 students, just 36 can recognize between 1733 and 2000 word families. This figure is significantly low if we take into account the required word threshold to comprehend 95% of spoken language and texts in English. As discussed earlier, an approximate vocabulary knowledge of 3,000 and 4,000-word families is necessary (Nation

2022: 16). This implies that the receptive vocabulary of these students is strongly impaired, and they are capable of understanding only about 83% of the words in a children's movie. Yet, they still fall short of comprehending 95% of a native speaker's conversation.⁸ Regarding the second-highest scoring level among the students, namely the academic level, even though this level was not considered in the overall results of the VLT test, it is noteworthy to explore why my sample seems to know 334 words out of the 570 in this level. Figure 9 below provides a visual representation of the results obtained.

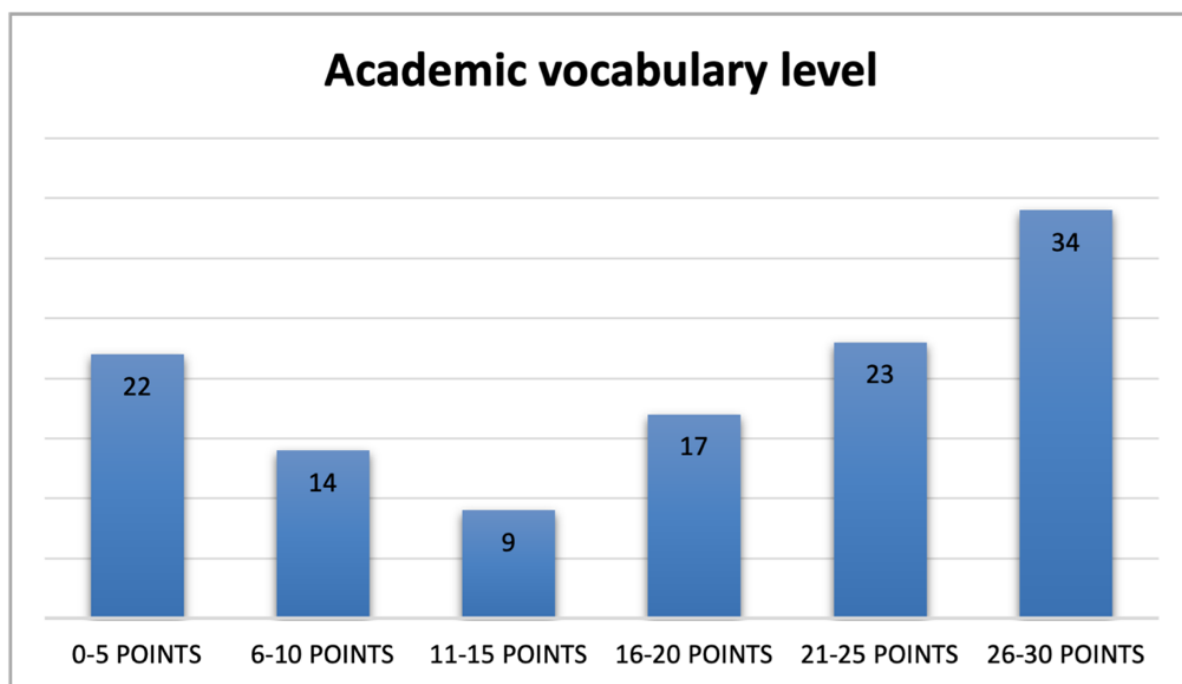


Figure 9. Frequency distribution of test scores for the AWL

As can be seen, 57 students were able to achieve high scores at this frequency level. The reason why these results were not taken into consideration is due to the fact that the majority of vocabulary in this level originates from Latin and Greek. Lubliner and Hiebert (2011) point out that both English and Spanish have approximately 10,000 Latin-derived cognate words, meaning that Spanish speakers are at a distinct advantage when learning English. In general, speakers of Romance languages are able to guess the words at this level rather easily because of their similarity. In addition, Schmitt, Schmitt, and Clapham (2001: 69-77) suggest that the results of this level, in particular for speakers of Romance languages,

⁸ During the discussion of these results, participants received an explanation sheet (see Appendix 10.5) based on Tanaka and Pathrakorn (2018: 97), which was translated into Spanish. This sheet clarified the concept of vocabulary size and provided estimates of the number of words needed to comprehend a children's movie like 'Shrek' or various English texts.

are compatible with the 2,000 and 3,000 levels since 472 of the 570 words in the AWL are Latin words.

Part 2: Correlations

To ascertain if there is indeed statistical significance in terms of the aforementioned extramural English activities and the participants' receptive or productive vocabulary knowledge, as well as their age, gender, and academic background, correlation tests were implemented. Dörnyei (2007: 210) mentions that in social sciences (in this case, linguistics), to determine if results are considered significant, the level of significance is set at $p < 0.05$. This threshold implies that the probability of results occurring by chance is less than 5%, and when showing the results in tables, this is marked with one asterisk (*). Thus, to present the correlation results, such indicators will be used.

Additionally, for RQ3 and RQ4, Kendall's tau-b correlations (τ) were preferred over Spearman's due to the ordinal and small nature of the data sample. Similarly, according to Croux and Dehon (2010), Kendall correlation has lower sensitivity to gross errors (GES) and smaller asymptotic variance (AV), making it more robust and efficient. This choice yielded more correlations in the sample.

As can be seen in the table below, positive correlations are observed for certain extramural activities,⁹ such as watching TV in English with English subtitles, particularly at the 2,000-word level ($\tau = 0.130^*$, $p = 0.031$) and at the 3,000-word level ($\tau = 0.151^*$, $p = 0.015$).

⁹ The AWL correlations will not be considered; as mentioned previously, this level should not be deemed relevant to Romance speakers.

Table 8. Correlations between EE activities and receptive vocabulary knowledge

Variables		2K-word level	3K-word level	5K-word level	AWL	10K-word level
Watch TV in English with English subtitles	Kendall's Tau B	.130*	.151*	.110	.104	-.003
	p-value	.031	.015	.055	.066	.483
Watch TV in English with Spanish subtitles	Kendall's Tau B	.069	.115*	.087	.090	-.017
	p-value	.158	.048	.103	.096	.404
Listen to music or audiobooks in English	Kendall's Tau B	.159*	.167	.138*	.138*	.090
	p-value	.013	.009	.026	.026	.104
Read English books, magazines, comics	Kendall's Tau B	.236	.228	.213	.185	.161*
	p-value	<.001	<.001	.001	.004	.011
Playing games in English	Kendall's Tau B	.099	.102	.127*	.079	.130*
	p-value	.079	.072	.034	.129	.033
Use social media in English	Kendall's Tau B	.344	.270	.249	.266	.211
	p-value	<.001	<.001	<.001	<.001	.001
Chat or speak in English	Kendall's Tau B	.213	.209	.162	.130*	.043
	p-value	.001	.001	.010	.031	.269

*. Correlation is significant at the 0.05 level (1-tailed).

Likewise, a positive correlation is evident at the 3,000-frequency level for the activity 'watching TV in English with Spanish subtitles' ($\tau = 0.115^*$, $p=0.048$). Previous studies have emphasized the benefits of watching English TV with subtitles for improving students' vocabulary (Berns et al., 2007; Kuppens, 2010). Moreover, the research conducted by Webb and Rodgers (2009) and Rodgers and Webb (2011) indicates that television programs, especially TV series, offer the advantage of consistently repeating low and mid-frequency words. Therefore, this repetition enhances the chances of incidentally learning words beyond the 3,000 most frequent ones.

However, as discussed in Chapter 4, it is essential to recognize that not all extramural English activities inherently improve a learner's English proficiency; the critical factor is the quality of the engagement rather than the quantity. For this reason, a more in-depth examination of a student's TV-watching habits and the specific shows they choose may reveal insights into why this activity might not be significantly contributing to the development of their receptive vocabulary knowledge.

In contrast, one of the highest correlations was between the activity 'listen to music' and vocabulary knowledge at the 2,000-word level ($\tau = 0.159^*$, $p=0.013$). Interestingly, for this same activity, we can also see a positive correlation for the 5,000-word level ($\tau = 0.138^*$, $p = 0.026$). This corresponds with the findings presented by Schön et al. (2008), which suggest

various benefits of using songs for incidental language learning. Listening to music is believed to have advantageous properties for structuring speech, as highlighted in their research.

Another activity that demonstrated a positive correlation at the 5,000-word frequency level is gaming ($\tau = 0.127^*$, $p = 0.034$), which indicates that engagement in this activity leads to more specialized vocabulary knowledge. To further explore the nuances of these relationships, boxplots were employed to visualize outliers in activities that displayed higher scores (5,000 and 10,000-word levels).¹⁰

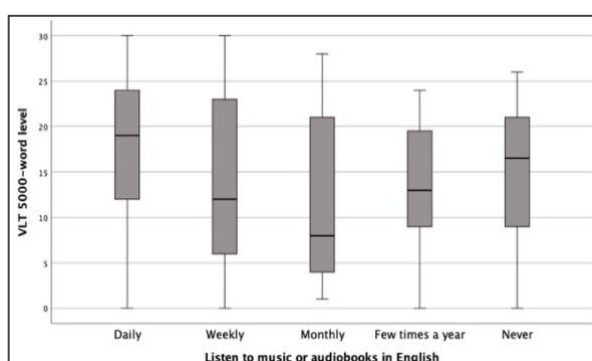


Figure 10. Trends in receptive vocabulary knowledge for the EE activity 'Listening to music in English' at the 5,000-word level

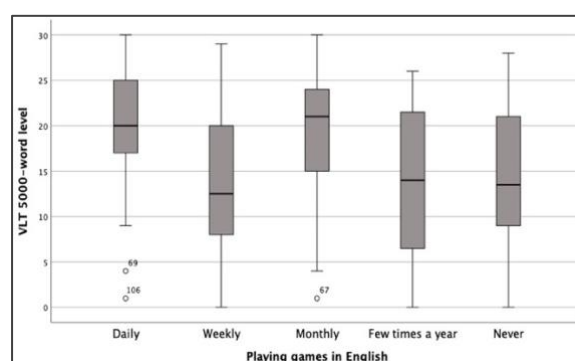


Figure 11. Trends in receptive vocabulary knowledge for the EE activity 'Playing games in English' at the 5,000-word level

If we take a look at the boxplots from both activities at the 5,000-word level, we can see that there are distinct distribution patterns based on how frequently participants engage in these activities, but the key observation is that higher median scores are associated with students who reported daily engagement ($m_{\text{music}}=19$, $m_{\text{gaming}}=20$). However, it is also interesting to observe that for the 'listening to music' activity, there are some participants who got a median score of 16 points even though they never engaged in it. Furthermore, in Figure 11, certain outliers draw attention to intriguing variations in the relationship between gaming in English and receptive vocabulary knowledge. More specifically, it is noteworthy that two participants reported gaming on a daily basis, yet they scored 4 and 1 points, respectively, at this word frequency level.

¹⁰ Appendix 10.6 contains the rest of the boxplots not discussed here.

In addition, some participants reported engaging in gaming activities monthly and got higher scores (median=21) compared to those who reported gaming daily. Also, the maximum score is higher for those who engage 'monthly' than for those who engage 'weekly'. Here, we can see an outlier as well who indicated monthly gaming but achieved a score of only 1 point at this level. The presence of these outliers prompts a closer examination of potential contributing factors that could be deemed interesting for future research. On one hand, there could be variability in the linguistic content of the games played, i.e., different game genres may expose participants to varying levels of vocabulary. On the other hand, we also need to consider individual differences in the students, such as learning styles. Hence, to better understand the impact of gaming as an EE activity on the receptive vocabulary of these students, there needs to be a more detailed exploration of their gaming profiles that includes the types of games being played and the duration of their gaming sessions.

Moving on to the correlations at the 10,000-word level, it can be observed that reading in English shows the strongest correlation ($\tau = 0.161^*$, $p = 0.011$), suggesting that this activity has indeed a beneficial impact on vocabulary knowledge at higher frequency levels. Interestingly, despite expectations that this particular activity would have some effect on receptive vocabulary, no additional positive correlations were found in other frequency levels. After all, as mentioned in section 4.2.1, extensive reading has been found to have more effects on receptive vocabulary.

Conversely, gaming also presents a positive correlation, although moderate ($\tau = 0.130^*$, $p = 0.033$). By looking at the boxplots in Figures 12 and 13, it can be appreciated that although there is a negative trend for both activities, there are also some high-scoring outliers. Overall, the higher maximum scores were achieved by those who engage in these activities on a daily basis and a few times a year (for gaming only).

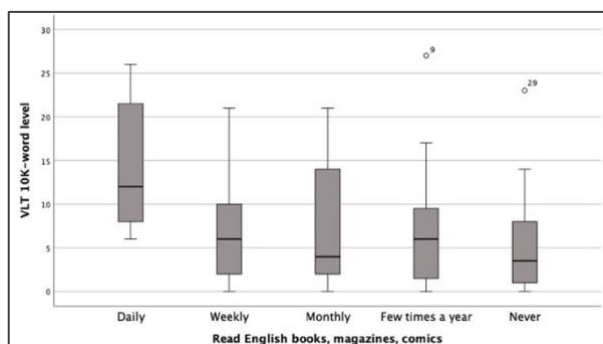


Figure 12. Trends in receptive vocabulary knowledge for the EE activity 'Reading in English' at the 10,000-word level

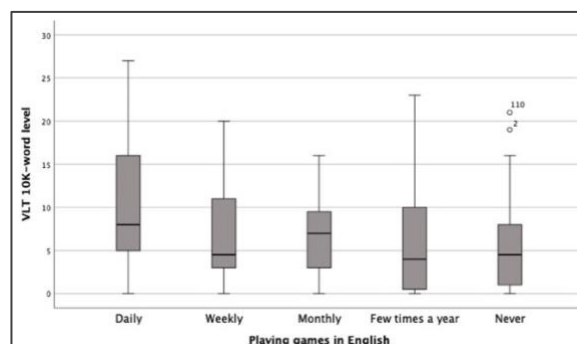


Figure 13. Trends in receptive vocabulary knowledge for the EE activity 'Playing games in English' at the 10,000-word level

Participants who reported engaging in both activities daily achieved an average test score of 12 points for reading and 8 points for gaming. Regarding outliers in the reading activity, the participant who engaged in reading only a few times a year scored remarkably high across all frequency levels, particularly achieving 27 points at the 10,000 level. Although this person is an advanced student, thus she may already have some strong English knowledge. On the contrary, the student who reported never reading scored 23 points at this level, is on a beginner level, and consistently scored more than 24 points in each frequency level (except for the 10,000). This finding is rather interesting, but to make conclusions, more research concerning her language learning habits is needed.

Concerning outliers in the gaming activity who claimed never to engage in it, one scored 19 points, and the other scored 21 points. Yet, they are high-intermediate and advanced students, and even though they may not engage in gaming activities, they may engage regularly in some other EE activities that are helpful for their vocabulary acquisition. Generally, these four participants consistently scored close to 30 points at all frequency levels, and although the questionnaire was designed specifically to target certain EE activities, it is intriguing to find out more about the vocabulary learning habits of these students based on their observed vocabulary proficiency since a complex interplay of factors may account for their higher scores.

This, however, is outside the scope of the objectives examined here. In some cases, their language proficiency may be due to their exposure to other EE activities, academic learning, i.e., reading academic texts either for their job or studies, individual learning strategies, or simply their inherent language skills. Therefore, to gain a deeper understanding of the

factors influencing advanced vocabulary proficiency, especially concerning reading habits, future research could explore the participants' linguistic backgrounds, academic exposure, and learning strategies.

7.5. EE and productive vocabulary

This section will go into the results linked to the observed correlations between the participants' extramural English activities and their productive vocabulary knowledge. To tackle this, research question 4 was formulated as follows:

- RQ4: What is the correlation between extramural English activities and the productive vocabulary knowledge of Costa Rican adult learners?

Part 1: Participants' productive vocabulary size

Prior to discussing the correlations for this research question, a brief overview of the general results of the student's productive vocabulary test will be presented. In section 6.3, it was explained that the PVLТ, although it assesses productive vocabulary size, does not give an overall estimate of a participant's vocabulary size. Instead, the results of each frequency level must be considered individually. In line with this, as the PVLТ follows the structure of the VLT test (Laufer & Nation 1999: 37), the students' productive vocabulary size will be computed using the same formula designed by Nation (1990: 76). Once again, it is worth noting that for this test, each correct answer received one point, and each frequency level comprised 18 items, resulting in a total of 90 items for the entire test, and, to pass a frequency level successfully, the students needed to score at least 12 points out of 18. The highest score achieved in the entire test by one participant was 18 points at the 2,000-word level, and the lowest (at this same level) was 1.

On average, the participants scored 7.21 points. The following table summarizes the mean scores obtained by the participants at each frequency level and the number of word families known using Nation's formula.

Table 9. Results for productive vocabulary level

	Number of word families within each frequency level	Mean	Total word families known
2000-word level	2000	7.21	801
3000-word level	1000	4.37	243
5000-word level	1000	3.74	208
UWL	836	4.47	208
10K-word level	1000	3.53	196

N=119

Table 9 indicates that the average scores for the productive test fall below the minimum points needed to pass each level. This suggests that the participants' productive vocabulary size is notably lower than their receptive vocabulary. While the mean score for the 2,000-word level is relatively higher, it still falls short of the required 2,000-word families. Specifically, only 23 out of 119 participants passed the 2,000-word level, and just 9 passed the 3,000-word level, which is concerning given that many participants are in intermediate and advanced levels.

In contrast, the trend of higher receptive vocabulary scores compared to productive ones is consistent with expectations and findings from other studies. Zhou (2010) notes that learners typically develop their receptive knowledge before their productive knowledge. This aligns with arguments from Milton (2009) and Nation (2022), who emphasize that receptive vocabulary is usually acquired more easily than productive vocabulary for foreign language learners. In summary, continuous exposure to engaging activities like watching videos, listening to music, or reading leads to a notable difference between the practice received by receptive vocabulary and that received by productive vocabulary.

Part 2: Correlations

Turning our attention to the correlations, despite the discouraging outcomes for productive vocabulary size, Table 10 indicates a consistent presence of positive relationships between extramural English activities and productive vocabulary size across the different frequency levels. Additionally, the table highlights a greater number of correlations in productive vocabulary compared to those observed in receptive vocabulary knowledge. This disparity

suggests a positive influence of these activities on productive vocabulary acquisition, and although the magnitude of these correlations may vary slightly, the overall pattern remains notably similar.

Table 10. Correlations between EE activities and productive vocabulary knowledge

Variables		2K-word level	3K-word level	5K-word level	UWL	10K-word level
Watch TV in English with English subtitles	Kendall's Tau B	.157*	.129*	.178	.157*	.199
	p-value	.013	.035	.006	.013	.003
Watch TV in English with Spanish subtitles	Kendall's Tau B	.054	.106	.131*	.106	.125*
	p-value	.221	.067	.033	.068	.039
Listen to music or audiobooks in English	Kendall's Tau B	.168*	.172	.150*	.228	.190
	p-value	.010	.009	.019	<.001	.005
Read English books, magazines, comics	Kendall's Tau B	.131*	.140*	.124*	.101	.139*
	p-value	.033	.025	.042	.079	.028
Playing games in English	Kendall's Tau B	.014	.008	.021	.053	.077
	p-value	.424	.454	.387	.231	.143
Use social media in English	Kendall's Tau B	.254	.228	.156*	.218	.225
	p-value	<.001	<.001	.015	.001	<.001
Chat or speak in English	Kendall's Tau B	.160*	.154*	.107	.177	.208
	p-value	.012	.015	.067	.006	.002

*. Correlation is significant at the 0.05 level (1-tailed).

As can be seen from the data above, all correlation coefficients are positive and statistically significant, suggesting that higher engagement in these activities is associated with larger productive vocabularies, particularly at the 5,000-word frequency level where there is a greater presence of correlations in comparison to those observed in receptive vocabulary. In contrast, when considering the EE activity 'watching TV in English with English subtitles,' positive correlations emerge at the frequency levels 2,000 ($\tau = 0.157^*$, $p = 0.013$), 3,000 ($\tau = 0.129^*$, $p = 0.035$), and UWL level ($\tau = 0.157^*$, $p = 0.013$). This suggests that students who participated in this activity exhibited a notable positive correlation with an increased productive vocabulary size. In addition, the correlations at the 2,000 and UWL-word levels surpass those from receptive vocabulary knowledge. To illustrate the variations in the frequency of engagement of this activity across both levels, we can take a look at Figures 14 and 15:¹¹

¹¹ Once again, to be concise, only the boxplots of those EE activities with the most interesting correlations will be displayed. Appendix 10.7 contains the rest of the boxplots.

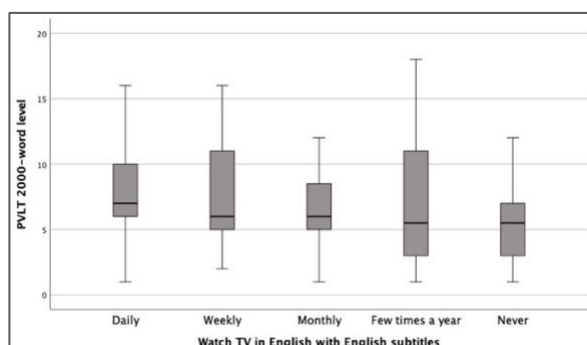


Figure 14. Trends in productive vocabulary knowledge for the EE activity 'Watching TV in English with English subtitles' at the 2,000-word level

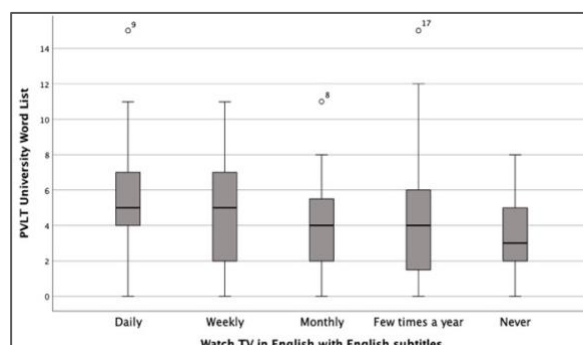


Figure 15. Trends in productive vocabulary knowledge for the EE activity 'Watching TV in English with English subtitles' at the UWL level

In both figures, it can be seen that the median score remains quite consistent for daily engagement ($m_{2K}=6$, $m_{UWL}=5$), with an outlier scoring 15 points at the UWL level. Nonetheless, the highest maximum scores were attained by those who reported engaging in this activity a few times a year (18 points for the 2,000 level and 12 points for the UWL level). In addition, there is an outlier who achieved 15 points at the UWL level despite rare engagement in this activity.

These results align with expectations given that both participants are in high-intermediate and advanced levels, but as emphasized by Berns et al. (2007), the growth of learners' vocabularies is not solely attributed to their TV-watching habits but also to an earlier initiation of English lessons. Still, these two outliers (participants 9 and 17) were the only ones at higher levels who scored exceptionally high across all frequency levels and tests. An interview with them could have provided valuable insights to delve deeper into their vocabulary-learning techniques.

Another interesting result is that participants who watched TV in English with Spanish subtitles exhibited statistically significant positive correlations with higher productive vocabulary sizes than receptive, especially at the 5,000 ($\tau = 0.131^*$, $p = 0.033$) and the 10,000-word levels ($\tau = 0.125^*$, $p = 0.039$).¹² This indicates a potential positive impact on vocabulary acquisition for this EE activity, even when subtitles are not in English.

¹² It is important to note that the higher scores at both levels (i.e., the outliers) were attained by students in the high-intermediate and advanced levels. Hence, these boxplots will not be discussed as their results were to be expected, which means they most likely have a substantial foundation in English.

Thus, learners seem to acquire more active vocabulary from this activity, perhaps because watching shows in English with Spanish subtitles may provide them with a richer contextual learning environment where they are able to associate words in a certain context. Hence, more active cognitive processes related to language production are involved. However, no definite conclusions can be drawn at this point since more research is required.

Moving on to the next EE activity with the highest correlation at the 2,000-word level, namely 'Listening to music' ($\tau = 0.168^*$, $p = 0.010$), the following boxplots illustrate the differences in the frequency of engagement among participants.

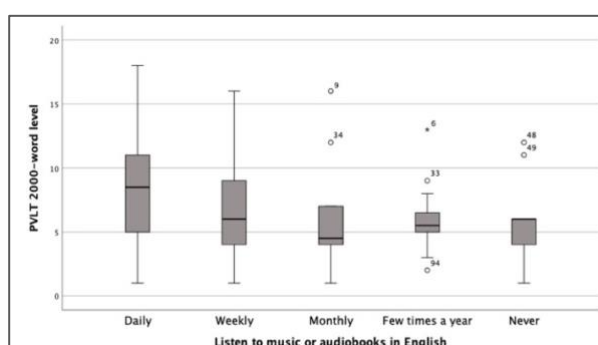


Figure 16. Trends in productive vocabulary knowledge for the EE activity 'Listening to music' at the 2,000-word level

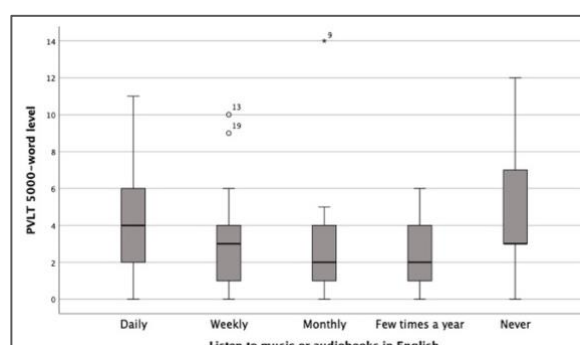


Figure 17. Trends in productive vocabulary knowledge for the EE activity 'Listening to music' at the 5,000-word level

Observing the boxplots, it is noticeable that the median score for daily engagement at the 2,000-word level slightly surpasses that at the 5,000-word level ($m_{2k}=8$, $m_{5k}=4$). Moreover, the maximum daily engagement score at the 2,000-word level reaches 18 points, compared to 16 points at the 5,000-word level. This suggests that while the correlation between listening to music and productive vocabulary was stronger at the 2,000-word level compared to the 5,000-word level, participants still showed vocabulary gains. Listening to music as an extramural activity does contribute to vocabulary learning, albeit at a slower pace, as suggested by Niousha, Webb, and Faez (2019).

In contrast, it can be seen that at the 5,000-word level, there is one outlier with an exceptionally high score, specifically, 14 points with a monthly basis of engagement. Similarly, the second highest score (12 points) was attained by a participant who claimed no engagement at all in listening to music or audiobooks in English. With regard to the outliers at the 2,000-word level, all of them fall within the pre-intermediate, high-intermediate, or advanced proficiency levels. This suggests that their outcomes are unsurprising, given their

proficiency levels, even when engaging infrequently in this particular activity. Their prior exposure to English content might have enhanced their ability to grasp and retain vocabulary more effectively.

Further, the EE activity 'reading English books' presents some interesting higher correlation results at the 3,000 ($\tau = 0.140^*$, $p = 0.025$) and 10,000 ($\tau = 0.139^*$, $p = 0.028$) frequency levels. The figures below illustrate the findings more accurately.

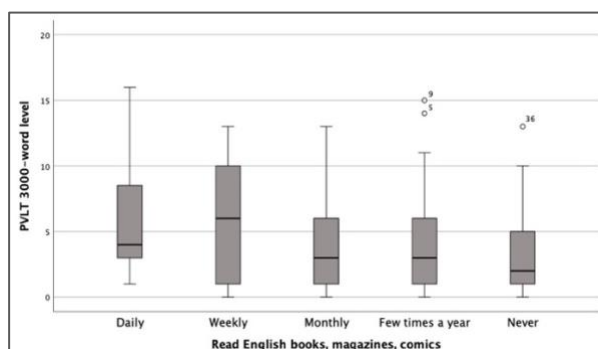


Figure 18. Trends in productive vocabulary knowledge for the EE activity 'Reading in English' at the 3,000-word level

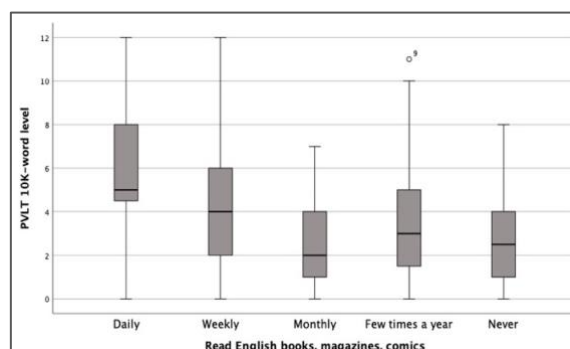


Figure 19. Trends in productive vocabulary knowledge for the EE activity 'Reading in English' at the 10,000-word level

In the realm of daily engagement in reading activities, the comparison of median scores ($m_{3K}=4$, $m_{10K}=5$) suggests a consistent positive impact across both the 3,000-word and 10,000-word levels. But a more nuanced examination of maximum scores reveals intriguing insights. Daily and weekly engagement emerge as particularly influential, contributing to the highest points obtained, especially at the 3,000-word level—16 points for daily and 13 for weekly engagement, surpassing the 12 points achieved at the 10,000-word level. Likewise, equally interesting are the scores obtained at the 10,000-word level for weekly and monthly engagement, which indicate that consistent but non-daily engagement still positively influences vocabulary acquisition, albeit to a slightly lesser extent.

On the other hand, the highest maximum scores from participants who reported reading only a few times a year or never were 11 and 10 points at the 3,000-word level and 10 and 8 points at the 10,000-word level, respectively. This suggests that sporadic engagement in reading may not consistently contribute to vocabulary development. In contrast, a remarkable finding is that one of the three outliers at the 3,000-word level (participant 36) is classified as a beginner and reported never reading, yet she was one of the two participants at the beginner level who successfully passed the 3,000-word frequency level with 13 points.

This intriguing case challenges conventional expectations and highlights the complexity of the relationship between engagement in EE activities and vocabulary acquisition. As for the other two outliers, they are in the high-intermediate and advanced levels.

The patterns found in my sample concerning reading as an EE activity are rather interesting and given the correlations between reading and receptive vs. productive vocabulary knowledge, the patterns suggest that for my sample, this activity is more strongly correlated with productive vocabulary knowledge across multiple frequency levels. Several factors could contribute to these patterns, such as text genre, the learner's motivation, interest, individual cognitive styles, reading strategies, etc. Thus, future research could benefit from taking all these aspects into account. All in all, the observed patterns indicate that while daily engagement appears to have a more substantial impact across both frequency levels, even infrequent engagement can contribute positively, further emphasizing the relevance of extensive reading for vocabulary acquisition (cf. section 4.2.1). However, it is also important to recognize the potential benefits of less frequent engagement, as this encourages a flexible approach that accommodates varying schedules and preferences.

Further, the last EE activity showing one of the most remarkable positive correlations at the 5,000-word frequency level is social media usage ($\tau = 0.156^*$, $p = 0.015$), despite lacking any positive correlation with receptive vocabulary. This observation is interesting, especially given the established benefits of social media platforms in enhancing listening skills, as discussed in Chapter 4. That said, participants who used social media in English demonstrated a statistically significant positive correlation with larger productive vocabulary sizes. This is illustrated in the boxplot below.

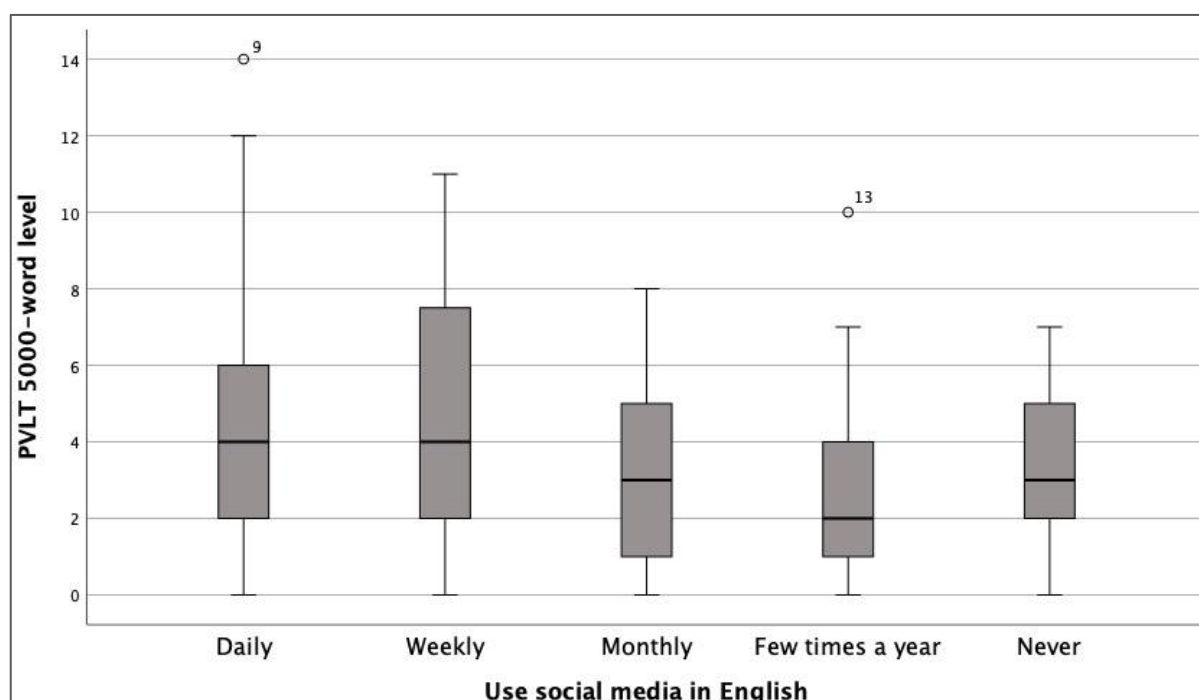


Figure 20. Trends in productive vocabulary knowledge for the EE activity 'Using social media in English' at the 5,000-word level

Based on the boxplot results, it is apparent that participants who engage with social media platforms on a daily and weekly basis achieved the highest maximum scores (12 points for daily engagement and 11 points for weekly engagement) despite consistently low median scores (4 points). An interesting observation is that participants who never engage in social media platforms achieved slightly higher median scores ($m=3$) than those who reported using them a few times a year, though the maximum scores for both groups remained the same (7 points). Another notable point is that both outliers are in the advanced levels, with participant 9, who reported daily social media use, scoring 14 points at this frequency level, while participant 13, reporting infrequent use, scored only 10 points, falling short of passing the 5,000-word frequency level. Furthermore, examining the reported daily usage hours of the internet for these two participants (both marking 'more than 5 hours a day'), participant 9 specified mostly using YouTube and Instagram, whereas participant 13 mentioned using TikTok, Instagram, and Netflix (although the latter is not considered a social media platform). Thus, it is reasonable to conclude that higher engagement frequency with social media platforms correlates with increased vocabulary knowledge. As discussed in section 4.2.6, social media platforms not only enhance learners' listening skills but also provide them with opportunities for communication with native speakers, which facilitate the development of conversational skills, i.e., productive vocabulary (Lin, Warschauer, & Blake 2016).

7.6. Gender and age differences

This section is guided by the following research question:

- RQ5: How do the gender and age of Costa Rican adult learners relate to their vocabulary knowledge?

7.6.1. Gender

As discussed in section 2.3.2, many studies on the topic of extramural English and vocabulary proficiency reported having found some differences concerning the gender of the participants, while others reported none. Hence, in order to see if there are indeed some differences in my sample, a non-parametric test of means of comparison was conducted for two independent variables. More specifically, the Mann-Whitney test was used for the VLT/PVLT and gender values. Starting with descriptive statistics, Table 11 provides a summary of the results found.

Table 11. Descriptive statistics for gender differences in the VLT and PVLT scores

Frequency Level	Gender	N	Median	Std. deviation
VLT 2K	Female	81	22	7.22
	Male	38	25	6.98
VLT 3K	Female	81	15	7.63
	Male	38	21	7.34
VLT 5K	Female	81	13	8.38
	Male	38	20	7.76
VLT AWL	Female	81	17	9.88
	Male	38	24	8.96
VLT 10K	Female	81	4	6.38
	Male	38	7	6.74
PVLT 2K	Female	81	6	3.96
	Male	38	9	4.80
PVLT 3K	Female	81	3	3.84
	Male	38	5	4.01
PVLT 5K	Female	81	3	2.83
	Male	38	5	3.07
PVLT UWL	Female	81	4	3.16
	Male	38	5	3.46
PVLT 10K	Female	81	3	2.76
	Male	38	4	2.74

Although the questionnaire included three gender choices (male, female, and other), the latter was excluded from the results because nobody selected it. As can be observed from the data in the table above, the gender variable indicates that for my sample, males

consistently exhibited slightly higher median scores than females. If we take a look at the highest scored level of the VLT test, namely the 2,000-word level, one can see that in the female group (N=81), the average test score is 22 points with a standard deviation of 7.22. Comparatively, the male group (N=38) demonstrates a higher median test score of 25 points and a standard deviation of 6.98, and this pattern persists across subsequent word levels, suggesting a tendency for males to outperform females in receptive and productive vocabulary knowledge. Nonetheless, the standard deviation for the females appears to be higher than that of the males, indicating greater variability scores in the female group.

As for inferential statistics, the Mann-Whitney U test provided further insights. Its results yielded significant gender differences in favor of the male participants. Table 12 summarizes these results:

Table 12. Results of inferential statistics for gender-based differences.

Results of inferential statistics for gender-based differences ^a										
	VLT 2000 level	VLT 3000 level	VLT 5000 level	VLT Academic Vocabulary	VLT 10K level	PVLT 2000 level	PVLT 3000 level	PVLT 5000 level	PVLT University Word List	PVLT 10K level
Mann-Whitney U	1180.000	1143.000	1183.000	1145.000	1196.500	1113.000	1113.500	1171.500	1154.500	1176.500
Wilcoxon W	4501.000	4464.000	4504.000	4466.000	4517.500	4434.000	4434.500	4492.500	4475.500	4497.500
Z	-2.050	-2.260	-2.031	-2.249	-1.961	-2.440	-2.441	-2.109	-2.204	-2.083
Asymp. Sig. (2-tailed)	.040	.024	.042	.025	.050	.015	.015	.035	.028	.037
a. Grouping Variable: Gender										

In summary, for all word frequency levels, the p-values were consistently below the 0.05 significance level, except for the 10,000-word level in the VLT test. Hence, the results suggest a statistically significant difference in receptive and productive vocabulary knowledge between males and females, with males generally scoring higher. Nonetheless, despite the significance of my findings mirroring those in studies where the males outperformed the females in vocabulary tests (Edelenbos and Vinjé 2000; Lin and Wu 2004; Lynn, Fergusson, and Horwood 2005; Sundqvist 2009), a closer examination of the mean scores across the different word frequency levels reveals minimal differences in the points achieved by males and females, particularly in productive vocabulary.

Furthermore, it is essential to note that this study did not account for individual-level differences such as cognitive skills, language learning strategies, neurological factors, length of previous instruction, and so on, as highlighted by López Rúa (2006) and Sunderland

(2010). Consequently, further research is warranted to explore the validity of the results through alternative measures of English vocabulary knowledge in adults and its relation to gender, with the aim of achieving a more conclusive understanding.

7.6.2. Age

To obtain statistically significant information from the differences in age among my participants and their vocabulary knowledge, the Mann-Whitney U test was also employed. Additionally, it was decided to divide the six age groups mentioned in section 7.1.1 into two. The reason for this grouping is that there were not enough participants in two of the age groups.

Moreover, this research question was guided by the hypothesis that younger students would perform better than older students. Thus, to make the results more accurate, 52 participants are in the 'younger' group of 18-24 years old, and 67 participants are in the 'older' group of 25-65+ years old. The table below illustrates the results of descriptive statistics.

Table 13. Descriptive statistics for age differences in the VLT and PVLT scores

Frequency Level	Age group	N	Median	Std. deviation
VLT 2K	18-24	52	22	7.49
	25-65+	67	23	7.02
VLT 3K	18-24	52	15	7.44
	25-65+	67	17	7.82
VLT 5K	18-24	52	13	8.66
	25-65+	67	17	8.00
VLT AWL	18-24	52	18	9.67
	25-65+	67	21	9.88
VLT 10K	18-24	52	5	6.48
	25-65+	67	6	6.66
PVLT 2K	18-24	52	6	4.20
	25-65+	67	6	4.01
PVLT 3K	18-24	52	3	4.24
	25-65+	67	3	3.76
PVLT 5K	18-24	52	3	3.19
	25-65+	67	3	2.77
PVLT UWL	18-24	52	4	3.46
	25-65+	67	4	3.21
PVLT 10K	18-24	52	2	3.05
	25-65+	67	3	2.54

A quick glance at the findings in Table 13 reveals that, while the differences in median scores are relatively subtle, the older group did, in fact, achieve slightly higher median scores than the younger group. Similar to the gender variable, the 2,000-word frequency level exhibited the highest scores, with a median of 23 points for the older group and a standard deviation of 7.02. This trend persists across the other frequency levels, and notably, the scores for receptive vocabulary were identical except for the 10,000-word level. Alternatively, to determine if there are notable distinctions in vocabulary sizes between the younger and older groups, a comparison of scores was conducted across all frequency levels of the VLT and PVL. Table 14 displays the correlations for both groups.

Table 14. Results of inferential statistics for age-based differences

Results of inferential statistics for age-based differences ^a										
	VLT 2000 level	VLT 3000 level	VLT 5000 level	VLT Academic Vocabulary	VLT 10K level	PVLT 2000 level	PVLT 3000 level	PVLT 5000 level	PVLT University Word List	PVLT 10K level
Mann-Whitney U	1683.000	1554.000	1538.500	1552.000	1673.000	1726.000	1653.500	1726.500	1682.000	1442.000
Wilcoxon W	3061.000	2932.000	2916.500	2930.000	3051.000	3104.000	3031.500	3104.500	3060.000	2820.000
Z	-.317	-1.008	-1.091	-1.019	-.371	-.086	-.477	-.084	-.323	-1.620
Asymp. Sig. (2-tailed)	.751	.313	.275	.308	.710	.931	.633	.933	.746	.105
a. Grouping Variable: Age										

As can be seen from Table 14, the results from the Mann-Whitney U test indicate that there are no significant differences in both receptive and productive vocabulary knowledge between the younger (18-24) and older (25-65+) groups across the different word levels since the two age groups perform similarly in terms of vocabulary knowledge.

7.7. Socioeconomic status and vocabulary knowledge

This section investigates the relationship between the participants' socioeconomic background and their receptive and productive vocabulary knowledge.

- RQ6: How does the socioeconomic status of the learners relate to their vocabulary knowledge?

As mentioned in section 7.1.3, three variables were employed to measure SES among the participants: the highest level of education attained by both students and their parents, as well as their household possessions. Further, three educational levels (incomplete primary school, complete primary school, and incomplete secondary school) out of the six options provided in the EEQ regarding students' education had to be excluded from the analysis due

to insufficient data to adequately represent these categories. Therefore, the results could only be determined for 117 participants. The non-parametric Kruskal-Wallis test was chosen to reveal correlations between the variables, as this particular test assesses differences among three or more independent groups. Starting with the student's level of education, Table 15 below shows the correlations between the educational levels (complete secondary school, complete university education, and incomplete university education (currently finishing their degree)) and the VLT/PVLT scores.

Table 15. Results of inferential statistics for student's educational level

Participants' educational level ^{a,b}									
	VLT 2000 level	VLT 3000 level	VLT 5000 level	VLT Academic Vocabulary	VLT 10K level	PVLT 2000 level	PVLT 3000 level	PVLT 5000 level	PVLT University Word List
Kruskal-Wallis H	3.958	7.232	4.132	5.444	.236	.786	1.681	1.481	4.034
df	2	2	2	2	2	2	2	2	2
Asymp. Sig.	.138	.027	.127	.066	.889	.675	.431	.477	.133
a. Kruskal Wallis Test									
b. Grouping Variable: Participants' highest educational level									

The results from the Kruskal-Wallis test suggest that no significant differences exist between the participants' receptive and productive vocabulary and their educational levels. However, the only notable difference emerged in the 3,000-word frequency level of receptive vocabulary knowledge ($H=7.232$, $df=2$, $p=0.027$). Subsequent post-hoc analysis using Dunn's test with Bonferroni correction indicates a statistically significant difference ($p=0.014$) specifically between the educational levels 'complete university education' and 'incomplete university education (currently finishing their degree)'. This implies that the participants who have already completed their university education demonstrated a greater mastery of receptive vocabulary at this specific word frequency level than those who are still in the process of finishing their university degree.

Transitioning to the highest educational level achieved by parents, no notable differences emerged within the various ISCED levels of fathers' education and the learners' productive vocabulary knowledge. However, statistically significant differences were observed in receptive vocabulary knowledge at both the 2,000-word ($p= 0.046$) and 5,000-word levels ($p= 0.038$), as depicted in the table below:

Table 16. Results of inferential statistics for the fathers' educational level

Fathers' educational level ^{a,b}										
	VLT 2000 level	VLT 3000 level	VLT 5000 level	VLT Academic Vocabulary	VLT 10K level	PVLT 2000 level	PVLT 3000 level	PVLT 5000 level	PVLT University Word List	PVLT 10K level
Kruskal-Wallis H	8.005	6.033	8.414	6.057	1.441	1.636	2.898	2.511	2.475	2.335
df	3	3	3	3	3	3	3	3	3	3
Asymp. Sig.	.046	.110	.038	.109	.696	.651	.408	.473	.480	.506
a. Kruskal Wallis Test										
b. Grouping Variable: Fathers' highest attained level of education										

To identify which specific ISCED levels differ, a post-hoc Dunn's test with Bonferroni correction was again conducted. The results from the 2,000-word level revealed statistically significant differences between participants whose fathers had an ISCED Level 6 (BA program) and those with fathers in ISCED Level 2 (incomplete secondary education). In other words, the participants whose fathers had university education exhibited better receptive vocabulary performance at the 2,000-word level compared to those whose fathers did not finish secondary education, as evidenced by a p-value of 0.023.

The mean rank analysis further supports these findings, with a mean rank of 71.93 for ISCED Level 6 and 39.35 for ISCED Level 2. As for the 5,000-word level, two significant differences were found. The first one was between participants with fathers in ISCED Level 1 (primary school) and ISCED Level 2 ($p = 0.110$), and the second one was between participants with fathers who completed secondary school (ISCED Level 3) and those with fathers in ISCED Level 6 ($p = 0.227$). However, fathers in ISCED level 6 had the highest mean rank of 76.07.

Interestingly, when it comes to the mother's educational level, no significant differences were observed in relation to the learners' passive and active vocabulary knowledge. The results of the Kruskal-Wallis test are summarized in Table 17.

Table 17. Results of inferential statistics for the mothers' educational level

Mothers' educational level ^{a,b}										
	VLT 2000 level	VLT 3000 level	VLT 5000 level	VLT Academic Vocabulary	VLT 10K level	PVLT 2000 level	PVLT 3000 level	PVLT 5000 level	PVLT University Word List	PVLT 10K level
Kruskal-Wallis H	4.536	6.127	4.635	5.846	2.826	1.870	4.931	1.685	3.055	1.283
df	3	3	3	3	3	3	3	3	3	3
Asymp. Sig.	.209	.106	.201	.119	.419	.600	.177	.640	.383	.733
a. Kruskal Wallis Test										
b. Grouping Variable: Mothers' highest attained level of education										

As observed in the results, both receptive and productive vocabulary knowledge do not show significant correlations with the various ISCED levels of mothers' education at any of the VLT/PVLT frequency levels, as none of the p-values reach the conventional significance level of 0.05. This indicates that mothers' education levels may not have a significant impact on vocabulary knowledge in the observed context. Still, when considering the correlations observed on the fathers' side, the results highlight the influence and advantages associated with higher parental education in the context of L2 acquisition. In other words, there is an indication that parental educational levels play a role to some extent when it comes to influencing the language proficiency of the learners, as mentioned by Bourdieu (1973, 1986) in his concept of cultural capital.

Finally, the last SES variable related to cultural capital and vocabulary acquisition is the number of household possessions. In this case, the number of media devices available at the participants' houses with which they can have access to EE content.

Table 18. Results of inferential statistics for household possessions

Home Possessions ^{a,b}									
	VLT 2000 level	VLT 3000 level	VLT 5000 level	VLT Academic Vocabulary	VLT 10K level	PVLT 2000 level	PVLT 3000 level	PVLT 5000 level	PVLT University Word List
Kruskal-Wallis H	.883	.630	.100	.051	2.773	1.083	.292	.447	2.225
df	2	2	2	2	2	2	2	2	2
Asymp. Sig.	.643	.730	.951	.975	.250	.582	.864	.800	.329
a. Kruskal Wallis Test									
b. Grouping Variable: Household possessions									

The results depicted in Table 18 show no significant differences across the different levels of receptive and productive vocabulary knowledge since the p-values for all comparisons are greater than the conventional threshold of 0.05. Hence, these findings imply that, in this sample, the presence or absence of media devices at home does not appear to have a discernible impact on receptive and productive vocabulary knowledge.

In summary, socioeconomic factors, such as access to various media and the mother's educational background, do not seem to play a significant role in this study. While the latter aligns with Sundqvist's findings (2009), the observation about media devices is intriguing, especially considering that similar studies like Schwarz's (2020) have shown a small but significant correlation between media devices and learners' engagement in extracurricular activities. Nevertheless, two correlations were discovered between academic background

and receptive vocabulary knowledge: one from the participants' side and the other related to the father's education. In both cases, a university education significantly influenced passive vocabulary acquisition at the 2,000, 3,000, and 5,000-word frequency levels.

Moreover, it is intriguing that the mother's educational level does not seem to correlate with vocabulary knowledge in this sample. One possible explanation for this discrepancy could be sample variability. In other words, while the education levels of the fathers and mothers of my participants do not vary significantly, more fathers than mothers completed secondary education and obtained a university degree. On the other hand, in spite of my initial expectations that the mother's education would significantly influence the participant's L2 acquisition and overall academic performance, in line with findings by other researchers (Milne 1989; Garasky 1995; Black, Devereux, & Salvanes 2005), and given the societal context in Costa Rica where fathers are often absent, as discussed in section 7.1.3, numerous studies have suggested a lesser impact of the mother's education on their child's educational outcomes. Instead, similar to my findings, the father's education seems to play a more crucial role (Holmlund, Lindahl, & Plug 2011; Pronzato 2012; Wang et al. 2020). However, to better comprehend the nuances and potential reasons behind the patterns observed in my findings, further research, potentially in the form of a qualitative study, may be essential to delve into the dynamics of previous parental involvement in education within my sample.

7.8. Limitations and further research

There are a number of limitations to this study. First, it is crucial to note that since the language center where this study was conducted is affiliated with an important public university in Costa Rica, which admits a significant number of students each semester, my access was limited to a small subset of them. Hence, my data can be considered 'small' in comparison to the actual number of students enrolled in these courses.

Keeping this in mind, the results presented here should be treated with caution and should not be generalized to the entire population of students registered at the language institute. To achieve such generalizability, further extensive research beyond the scope of this thesis may be necessary. Nonetheless, this study can serve as a valuable starting point for future research to measure receptive and productive vocabulary knowledge in the context of adult ESL learners with Spanish as an L1.

Second, the correlations discovered here may not be applicable to a larger and more diverse group. Instead, they should be regarded as a foundation for generating hypotheses for future research with more varied samples. In addition, it would have been beneficial to employ a mixed-methods approach to complement and further explain certain results, particularly those related to the participants' backgrounds. This approach could have delved into aspects such as the reasons behind their residence in another country and how frequently they communicated in English while traveling. For those participants who achieved the highest scores across all frequency levels in both tests, an interview could have provided insights into their vocabulary learning strategies, academic and socioeconomic backgrounds, etc. Using a questionnaire alone does not allow for in-depth conclusions regarding the effects of out-of-class exposure to English activities on vocabulary acquisition in adult learners.

Third, in addressing the questionnaire's limitations, inquiries about the number of hours dedicated to extramural English activities by participants per week were omitted. Obtaining this information would have provided more accurate insights into the frequency of engagement with extramural English. Additionally, questions regarding the duration and hours of English instruction participants had received could have been included, considering how formal educational settings impact learners' extramural language engagement, as noted by Fitzpatrick and Clenton (2010). These details could have made comparisons and conclusions more accurate. Also, using a language diary might have yielded more comprehensive information, but due to time constraints, it had to be excluded from the study. Likewise, for participants who indicated attendance at private schools, including clarification questions about whether they received CLIL lessons could have improved the research into how their bilingual primary or secondary education correlated with their test results, as this aspect is closely tied to vocabulary acquisition. Lastly, the academic level in the VLT test could have been left out, as it proved to be of no significance for Spanish speakers.

8. Conclusion

To conclude, this study aimed to explore a relatively new area of research that has primarily focused on examining the impact of out-of-class activities related to the English language on children and teenagers. Surprisingly, limited research exists on this topic regarding adult learners, which motivated the initiation of this research project to address this gap. The study involved 119 adult ESL students aged 18 to 80 who engaged in English media activities during their leisure time. The most common extramural English activities included listening to music and audiobooks, using social media platforms like Facebook and YouTube, and watching TV in English with Spanish subtitles. Moreover, participants cited their desire for better job opportunities as the primary reason for learning English and engaging with the language in their free time. This motivation is closely tied to the current socioeconomic context in Costa Rica, where learning English is perceived as essential for an improved quality of life.

After exploring the frequency and motivations behind individuals' exposure to English beyond the classroom, the study delved into correlations with vocabulary knowledge. The findings revealed both intriguing and concerning aspects. On a positive note, the results indicated, in line with previous studies (Sundqvist 2009; Kuppens 2010; Sundqvist & Sylvén 2012, 2014; Schwarz 2020, etc.), that exposure to extramural English activities correlates positively with both productive and receptive vocabulary. However, a closer look at the Vocabulary Levels Test outcomes exposed a disconcerting reality: participants in the sample demonstrated a receptive vocabulary knowledge of fewer than 2,000 word families. Similarly, the results of the Productive Vocabulary Levels Test were even more alarming, revealing that despite years of English classes since primary school, as is customary in Costa Rica's public education system, participants lacked knowledge of even the most common 1,000-word families in English. This highlights not only issues within the Costa Rican educational system but also the substantial deficiency in the participants' language proficiency, especially considering that many should have attained a B1-B2 English level, as per the stipulated levels from the language institute where this study was carried out. In essence, the test results indicate that these learners have a significant impediment when actively engaging in both written and spoken communication, which highlights the urgent need for improvements in language education and proficiency levels.

Regarding the correlation results related to receptive and productive vocabulary, the findings indicate a clear connection between the time spent on EE activities and students' vocabulary scores, marking a significant discovery. Notably, reading demonstrated the strongest correlation at the 10,000-word frequency level of receptive vocabulary. This aligns with the discussion in Chapter 4, supporting the notion that extensive reading, when undertaken as an extramural activity, positively influences learners' vocabulary acquisition. Conversely, concerning productive vocabulary, the analysis revealed that listening to music exhibited the highest correlation with the 2,000-word frequency level. This implies that frequent engagement in this EE activity does not prove beneficial for productive vocabulary acquisition, especially when the aim is to learn low-frequency vocabulary. In contrast, with regard to gender and age differences, the study uncovered that males outperformed females in both tests, albeit with a marginal difference in scores. Regarding age, no discernible distinctions were observed. In other words, it is reasonable to infer that, within my sample, age does not exhibit a correlation with vocabulary acquisition.

Finally, in examining the connection between learners' socioeconomic status and vocabulary, it was determined that, concerning the academic background of participants, there was no discernible relationship with productive vocabulary. However, a correlation was identified between students with a university degree and receptive vocabulary at the 3,000-word level, indicating higher performance at this level in the VLT test for individuals with higher academic backgrounds. Alternatively, parental education exhibited correlations only on the fathers' side, specifically for students whose fathers held at least a bachelor's degree, with no such correlations observed on the mothers' side. Consequently, it can be concluded that parental education is linked to students' achievement and improved language acquisition. On the other hand, home possessions demonstrated no discernible relationship with vocabulary knowledge in my sample. Overall, this research provides valuable insights into the vocabulary knowledge of a group of learners for whom there is limited systematic information available. The study's emphasis on adult L2 English learners contributes to our understanding of both receptive and productive vocabulary knowledge in this demographic, paving the way for future comparisons with similar studies in the field.

9. References

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10. Appendix

10.1. Abstract

Traditionally confined to the classroom, second language learning has been significantly expanded since the emergence of extramural English (EE), a concept introduced by Sundqvist (2009). This new research field has opened up new avenues for second language acquisition outside of formal educational settings. While existing research has predominantly focused on the positive effects of extramural English on vocabulary acquisition in younger students, there is a noticeable lack of research regarding adult learners. To address this gap, this study investigates the practices of 119 adult English learners from a language institute in Costa Rica who actively engage in English media activities during their leisure time. The Vocabulary Levels Test (Schmitt, Schmitt, & Clapham 2001), the Productive Vocabulary Levels Test (Laufer & Nation 1999), and a questionnaire to delineate the extramural activities and their frequency of engagement served as the tools to assess the informants' active and passive vocabulary knowledge.

The results revealed a positive correlation between extramural English and both receptive and productive vocabulary knowledge. Additionally, there is a clear connection between the time invested in extramural English activities and students' vocabulary scores, marking a noteworthy discovery. Gender differences were also observed, with males outperforming females in both tests, although the margin of difference in scores was minimal. In terms of age, no noticeable correlations were found with vocabulary knowledge. Furthermore, when exploring the relationship between learners' socioeconomic status and vocabulary, only one significant correlation was identified between receptive vocabulary and the participants' academic background, specifically in those with a university degree. On the other hand, parental education demonstrated correlations exclusively on the fathers' side, with no corresponding connections on the mothers' side. This aligns with Bourdieu's (1973, 1986) concept of cultural capital, underscoring the significance of parental education for students' achievements and improved language acquisition. In summary, this study offers valuable insights into the vocabulary knowledge of a learner group for which systematic information is currently limited. However, further research is necessary to facilitate future comparisons with similar studies in the field.

10.2. Zusammenfassung

Traditionell auf den Klassenraum beschränkt, hat sich das Erlernen von Zweitsprachen seit dem Aufkommen von „Extramural English“ (EE), einem Konzept, das von Sundqvist (2009) eingeführt wurde, erheblich erweitert. Dieses neue Forschungsfeld hat neue Wege für den Erwerb von Zweitsprachen außerhalb formeller Bildungseinrichtungen eröffnet. Während bestehende Forschung sich vorrangig auf die positiven Effekte von Extramural English auf den Wortschatzerwerb bei jüngeren Schüler:innen konzentriert hat, gibt es einen spürbaren Mangel an Forschung zu erwachsenen Lernenden. Um diese Lücke zu schließen, untersucht diese Studie die Praktiken von 119 erwachsenen Englischlernenden aus einem Sprachinstitut in Costa Rica, die aktiv englischsprachige Medien in ihrer Freizeit konsumieren. Der „Vocabulary Levels Test“ (Schmitt, Schmitt, & Clapham 2001), der „Productive Vocabulary Levels Test“ (Laufer & Nation 1999) sowie ein Fragebogen zur Darstellung der außerschulischen Aktivitäten und deren Häufigkeit dienten als Instrumente zur Bewertung des aktiven und passiven Wortschatzes der Proband:innen.

Ergebnisse zeigten eine positive Korrelation zwischen Extramural English und sowohl rezeptivem als auch produktivem Wortschatzwissen. Darüber hinaus besteht eine klare Verbindung zwischen der investierten Zeit in außerschulische Englischaktivitäten und den Wortschatzwerten. Geschlechtsunterschiede wurden ebenfalls beobachtet, wobei Männer in beiden Tests besser abschnitten als Frauen, obwohl die Unterschiede in den Punktzahlen minimal waren. In Bezug auf das Alter wurden keine deutlichen Korrelationen mit dem Wortschatzwissen festgestellt. Bei der Untersuchung der Beziehung zwischen dem sozioökonomischen Status der Lernenden und dem Wortschatz wurde nur eine signifikante Korrelation zwischen dem rezeptiven Wortschatz und dem akademischen Hintergrund der Teilnehmer:innen identifiziert, insbesondere bei denen mit einem Universitätsabschluss. Andererseits zeigten sich elterliche Bildungskorrelationen ausschließlich auf der Seite der Väter, ohne entsprechende Verbindungen auf der Mütterseite. Dies stimmt mit Bourdieus (1973, 1986) Konzept des kulturellen Kapitals überein und unterstreicht die Bedeutung der elterlichen Bildung für die Leistungen der Schüler:innen und den verbesserten Spracherwerb. Zusammenfassend bietet diese Studie wertvolle Einblicke in das Wortschatzwissen einer Gruppe Lernender. Es sind jedoch weitere Forschungen erforderlich, um zukünftige Vergleiche mit ähnlichen Studien auf dem Gebiet zu ermöglichen.

10.3. EE Questionnaire

Original version (English)

English in your free time

Dear student,

This questionnaire is the first part of the study. It takes about 15 minutes to fill it in.

Please remember: Your responses are **anonymous** and will be kept confidential. This is not a test, so please answer the questions **spontaneously, honestly, and on your own** – there are no wrong answers!

I'm interested to know what you **personally** think!

In order to link your questionnaire to the other parts of the study, please fill in your personal code here:

My code:

____ ____ 1st and 2nd letter of your name
____ 1st letter of your mother's name
____ month in which you were born (e.g., 05 for May)

For example: Maria, Ana, May= **MAA05**

1. Age:

- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65+

2. Gender:

- ☐ Female
- ☐ Male
- ☐ Other

3. When did you start learning English?

- ☐ Late childhood (6-12 years old)
- ☐ Adolescence (12-20 years old)
- ☐ Early adulthood (20-40 years old)
- ☐ Middle adulthood (40-65 years old)
- ☐ Late adulthood (65+ years old)

4. Have you ever visited any English-speaking country?

- ☐ Yes
- ☐ No

If **yes**, how often have you been on Holiday in English-speaking countries?

- ☐ 1 to 3 times
- ☐ 4 to 6 times
- ☐ more than 6 times

I was in: _____

5. How often have you been on Holiday in non-English speaking countries where you communicated (mostly) in English?

- ☐ never so far
- ☐ 1 to 3 times
- ☐ 4 to 6 times
- ☐ more than 6 times

I was in: _____

6. Have you ever lived in another country for more than 3 months where you communicated in English most of the time? (Including non-English-speaking countries)

- ☐ Yes
- ☐ No

If **yes**, where and for how long (in months)?

1. _____ for ca. _____ months
2. _____ for ca. _____ months
3. _____ for ca. _____ months

7. What is your highest level of education?

- ☐ Incomplete primary school
- ☐ Complete primary school
- ☐ Incomplete secondary school
- ☐ Complete secondary school
- ☐ Complete university
- ☐ Incomplete university (I'm currently finishing my degree)

8. Were you in a private primary school or high school?

- ☐ Yes
- ☐ No

9. What is the highest level of education that your parents have completed?

Mother

- ☐ Primary education
- ☐ Incomplete secondary education
- ☐ Complete secondary education
- ☐ Complete university education
- ☐ Incomplete university education

Father

- ☐ Primary education
- ☐ Incomplete secondary education
- ☐ Complete secondary education
- ☐ Complete university education
- ☐ Incomplete university education

10. How many of the following things do you have at home? Tick the box.

Cell phones	0	1	2	3 or more
TV sets	0	1	2	3 or more
Computers (laptops, netbooks, desktop computers)	0	1	2	3 or more
Tablets/iPads	0	1	2	3 or more
Games console (Wii, PlayStation, Xbox, Nintendo, etc.)	0	1	2	3 or more
Means of transport (cars, motorcycles)	0	1	2	3 or more

11. How frequently do you use the internet every day?

- ☐ never
- ☐ less than 1 hour a day
- ☐ 1 to 2 hours a day
- ☐ 2 to 3 hours a day
- ☐ 3 to 4 hours a day
- ☐ more than 5 hours a day

12. Which 3 websites/apps do you visit most often?

1. _____
2. _____
3. _____

13. Tick the box. How often do you do these activities in your free time?

Activity	Daily	Weekly	Monthly	Few times a year	Never
Watch TV (series/movies/videos, documentaries, news, etc.) in English with English subtitles					
Watch TV (series/movies/videos, documentaries, news, etc.) in English with Spanish subtitles					
Listen to music or audiobooks in English					
Read English books, magazines, comics					
Play games in English					
Use social media in English (Youtube, Instagram, Facebook, Tiktok, Twitter)					
Chat or speak in English (SMS, Whatsapp, Telegram, etc)					

14. Why do you use English in your free time?

Reason	Strongly agree	Agree	Disagree	Strongly disagree
1. Many things are only available in English				
2. I need English for international contacts and friendships				
3. I would like to improve my English skills				
4. A lot of things sound better in English				
5. I need English for further education				
6. With English I have a better chance to get a job				
7. English gives me access to new developments in science and technology				
8. I just enjoy using English				
9. I have other reasons, namely:				

THANK YOU for your answers!





Uso del inglés en su tiempo libre

Querido estudiante,

El siguiente quiz y cuestionario son la primera parte del estudio. Se tarda aproximadamente unos 30-40 minutos en completarlos.

Recuerde: sus respuestas son **anónimas y se mantendrán confidenciales**. **Esto no es un examen**, así que responda a las preguntas de manera **espontánea, honesta y por su cuenta**. ¡No hay respuestas incorrectas!

En caso de que tenga alguna pregunta sobre mi investigación, o si desea saber más sobre el puntaje que obtuvo en sus quizzes y su conocimiento de inglés, ¡no dude en contactarme!

Cristina Avalos: a01468473@unet.univie.ac.at

1. Código Personal

Para vincular su cuestionario a las otras partes del estudio, complete su código personal aquí (en MAYÚSCULAS):

Ejemplo: María, Susana, Marzo = MAS03

1. Primera y
segunda letra de su
nombre

2. Primera letra del
nombre de su madre

3. MES en el que
usted nació
(ejemplo: 03)

Quiz #1

Por favor, copie y pegue el enlace de abajo en una nueva ventana y **NO CIERRE** este formulario.

Una vez terminado el quiz, **regrese a esta ventana** para completar el resto del cuestionario.

<https://www.lex tutor.ca/tests/vlt2/?mode=test>

Para obtener su puntaje una vez que haya terminado de hacer el quiz:

1. Haga clic en el cuadro amarillo **"SCORE as test"** en el lado izquierdo de la página
2. Haga clic en **"Record score"**
3. Ingrese el código personal que creó como su nombre (ej. MAS03)
4. Presione "Aceptar" para enviar su prueba y ver sus puntajes.

Una vez que obtenga sus resultados, **copie y péguelos aquí abajo**. Si es necesario, anote su puntaje o tome una captura de pantalla para guardarlos. Así es como se verán los resultados de su quiz.

TEST SCORE
VLT v.2

TIME (EST):
2020.11.16 /
05.07
COMPUTER:
IP_84.112.38.144
NAME: Student

Level	Percent
2k:	0
3k:	0
5k:	0
Acad:	0
10k:	0

Time
(secs): 168

This
information is
recorded at
Scores Record

¿Qué puntuación obtuvo en la prueba de vocabulario?

Por favor copie y pegue sus resultados aquí

EJEMPLO: 2k=100 3k=97 5k=97 Acad=100 10k=87

1. ¿Qué edad tiene?

(Elija)

2. Sexo

- ☐ Femenino
☐ Masculino
☐ Otro

3. ¿Cuándo comenzó a aprender Inglés?

Cuando tenía años
XX

4. ¿Alguna vez ha visitado un país de habla Inglesa como Estados Unidos, Canadá, o el Reino Unido?

- ☐ Sí
☐ No

En caso de haber contestado SI a la pregunta anterior, ¿Cuántas veces ha estado en países de habla Inglesa?

- ☐ 1 a 3 veces
☐ 4 a 6 veces
☐ más de 6 veces

Estuve en... (por favor, mencione todos los países de habla Inglesa en los que ha estado)

5. ¿Con qué frecuencia ha estado de vacaciones en países de habla NO INGLESA donde tuvo que comunicarse (en su mayoría) en Inglés?

- ☐ nunca hasta ahora
- ☐ 1 a 3 veces
- ☐ 4 a 6 veces
- ☐ más de 6 veces

Estuve en... (por favor, mencione todos los países de habla no Inglesa en los que ha estado)

6. ¿Alguna vez ha vivido en otro país por más de 3 meses donde se comunicó en Inglés la mayor parte del tiempo? (Incluyendo países de habla no Inglesa)

- ☐ Sí
- ☐ No

En caso de contestar SI, ¿dónde estuvo y por cuánto tiempo? (en meses)

7. ¿Cuál es el nivel más alto de educación que ha COMPLETADO?

- ☐ Primaria incompleta
- ☐ Primaria completa
- ☐ Secundaria incompleta
- ☐ Secundaria completa
- ☐ Universitaria con título
- ☐ Universitaria sin título (sigo cursando la carrera actualmente)

8. ¿Estuvo en una escuela o colegio privado?

- ☐ Sí
- ☐ No

9. ¿Cuál es el nivel de educación más alto que han completado sus padres?

Madre

[Elija] ▼

Padre

[Elija] ▼

10. ¿Cuántas de las siguientes cosas tiene usted en casa? Marque la casilla.

	0	1	2	3 o más
Celulares	☐	☐	☐	☐
Televisores	☐	☐	☐	☐
Computadoras (laptop, netbook, computadora de escritorio)	☐	☐	☐	☐
Tablets/iPads	☐	☐	☐	☐
Consola de video juegos (Wii, PlayStation, Xbox, Nintendo, etc.)	☐	☐	☐	☐
Medios de transporte (carros, motocicletas)	☐	☐	☐	☐

11. ¿Con qué frecuencia usa el Internet al día?

- ☐ Nunca
- ☐ menos de 1 hora al día
- ☐ 1-2 horas
- ☐ 2-3 horas
- ☐ 3-4 horas
- ☐ más de 5 horas al día

12. Mencione 3 sitios web o aplicaciones que visita con más frecuencia

13. ¿Con qué frecuencia realiza estas actividades en su tiempo libre? Marque la casilla

	Diariamente	Semanalmente	Mensualmente	Pocas veces al año	Nunca
Ver televisión (series, películas, videos, documentales, noticias, etc.) en INGLÉS con SUBTÍTULOS EN INGLÉS	☐	☐	☐	☐	☐
Ver televisión (series, películas, videos, documentales, noticias, etc.) en INGLÉS con SUBTÍTULOS EN ESPAÑOL	☐	☐	☐	☐	☐
Escuchar música o audiolibros en inglés	☐	☐	☐	☐	☐
Leer libros, revistas, cómics en inglés	☐	☐	☐	☐	☐
Jugar juegos en inglés (en el celular o en una consola)	☐	☐	☐	☐	☐
Usar las redes sociales en inglés (Youtube, Instagram, Facebook, Tiktok, Twitter)	☐	☐	☐	☐	☐
Chatear o enviar mensajes en inglés (SMS, WhatsApp, Telegram, etc)	☐	☐	☐	☐	☐

14. ¿Por qué razón utiliza el inglés en su tiempo libre? Marque la respuesta que más le convenga

	Muy de acuerdo	De acuerdo	En desacuerdo	Muy en desacuerdo
Muchas cosas solo están disponibles en inglés.	☐	☐	☐	☐
Necesito inglés para contactos internacionales y amistades	☐	☐	☐	☐
Me gustaría mejorar mis conocimientos o habilidades de inglés	☐	☐	☐	☐
Muchas cosas suenan mejor en inglés	☐	☐	☐	☐
Necesito inglés para continuar con mis estudios	☐	☐	☐	☐
Con el inglés tengo más posibilidades de conseguir un (mejor) trabajo	☐	☐	☐	☐
El inglés me da acceso a nuevos avances en ciencia y tecnología	☐	☐	☐	☐
Simplemente disfruto usando el inglés	☐	☐	☐	☐

Tengo otras razones:

10.4. Vocabulary tests

Vocabulary Levels Test

Quiz #1 – Receptive Vocabulary (VLT)

Type numbers in the boxes

2000 level

- | | | | |
|----------------|---|----------------|--|
| 1. copy | | 1. accident | |
| 2. event | <input type="text"/> | 2. debt | <input type="text"/> loud deep sound |
| 3. motor | <input type="text"/> end or highest point | 3. fortune | <input type="text"/> something you must pay |
| 4. pity | <input type="text"/> this moves a car | 4. pride | <input type="text"/> having a high opinion of yourself |
| 5. profit | <input type="text"/> thing made to be like another | 5. roar | |
| 6. tip | | 6. thread | |
| | | | |
| 1. coffee | | 1. clerk | |
| 2. disease | <input type="text"/> | 2. frame | <input type="text"/> a drink |
| 3. justice | <input type="text"/> money for work | 3. noise | <input type="text"/> office worker |
| 4. skirt | <input type="text"/> a piece of clothing | 4. respect | <input type="text"/> unwanted sound |
| 5. stage | <input type="text"/> using the law in the right way | 5. theatre | |
| 6. wage | | 6. wine | |
| | | | |
| 1. dozen | | 1. admire | |
| 2. empire | <input type="text"/> | 2. complain | <input type="text"/> make wider or longer |
| 3. gift | <input type="text"/> chance | 3. fix | <input type="text"/> bring in for the first time |
| 4. opportunity | <input type="text"/> twelve | 4. hire | <input type="text"/> have a high opinion of someone |
| 5. relief | <input type="text"/> money paid to the government | 5. introduce | |
| 6. tax | | 6. stretch | |
| | | | |
| 1. arrange | | 1. blame | |
| 2. develop | <input type="text"/> | 2. elect | <input type="text"/> make |
| 3. lean | <input type="text"/> grow | 3. jump | <input type="text"/> choose by voting |
| 4. owe | <input type="text"/> put in order | 4. manufacture | <input type="text"/> become like water |
| 5. prefer | <input type="text"/> like more than something else | 5. melt | |
| 6. seize | | 6. threaten | |
| | | | |
| 1. ancient | | 1. bitter | |
| 2. curious | <input type="text"/> | 2. independent | <input type="text"/> beautiful |
| 3. difficult | <input type="text"/> not easy | 3. lovely | <input type="text"/> small |
| 4. entire | <input type="text"/> very old | 4. merry | <input type="text"/> liked by many people |
| 5. holy | <input type="text"/> related to God | 5. popular | |
| 6. social | | 6. slight | |

3000 Level

- | | | | | |
|---------------|--------------------------|---|-------------------|--|
| 1. bull | | | 1. blanket | |
| 2. champion | ☐ | formal and serious manner | 2. contest | ☐ holiday |
| 3. dignity | ☐ | winner of a sporting event | 3. generation | ☐ good quality |
| 4. hell | ☐ | building where valuable objects are shown | 4. merit | ☐ wool covering used on beds |
| 5. museum | | | 5. plot | |
| 6. solution | | | 6. vacation | |
| | | | | |
| 1. comment | | | 1. administration | |
| 2. gown | ☐ | long formal dress | 2. angel | ☐ group of animals |
| 3. import | ☐ | goods from a foreign country | 3. frost | ☐ spirit who serves God |
| 4. nerve | ☐ | part of the body which carries feeling | 4. herd | ☐ managing business and affairs |
| 5. pasture | | | 5. fort | |
| 6. tradition | | | 6. pond | |
| | | | | |
| 1. atmosphere | | | 1. abandon | |
| 2. counsel | ☐ | advice | 2. dwell | ☐ live in a place |
| 3. factor | ☐ | a place covered with grass | 3. oblige | ☐ follow in order to catch |
| 4. hen | ☐ | female chicken | 4. pursue | ☐ leave something permanently |
| 5. lawn | | | 5. quote | |
| 6. muscle | | | 6. resolve | |
| | | | | |
| 1. assemble | | | 1. drift | |
| 2. attach | ☐ | look closely | 2. endure | ☐ suffer patiently |
| 3. peer | ☐ | stop doing something | 3. grasp | ☐ join wool threads together |
| 4. quit | ☐ | cry out loudly in fear | 4. knit | ☐ hold firmly with your hands |
| 5. scream | | | 5. register | |
| 6. toss | | | 6. tumble | |
| | | | | |
| 1. brilliant | | | 1. aware | |
| 2. distinct | ☐ | thin | 2. blank | ☐ usual |
| 3. magic | ☐ | steady | 3. desperate | ☐ best or most important |
| 4. naked | ☐ | without clothes | 4. normal | ☐ knowing what is happening |
| 5. slender | | | 5. striking | |
| 6. stable | | | 6. supreme | |

5000 Level

1. analysis

2. curb

3. gravel

4. mortgage

5. scar

6. zeal

☐

eagerness

☐

loan to buy a house

☐

small stones mixed with sand

1. cavalry

2. eve

3. ham

4. mound

5. steak

6. switch

☐

small hill

☐

day or night before a holiday

☐

soldiers who fight from horses

1. circus

2. jungle

3. nomination

4. sermon

5. stool

6. trumpet

☐

musical instrument

☐

seat without a back or arms

☐

speech given by a priest in a church

1. artillery

2. creed

3. hydrogen

4. maple

5. pork

6. streak

☐

a kind of tree

☐

system of belief

☐

large gun on wheels

1. chart

2. forge

3. mansion

4. outfit

5. sample

6. volunteer

☐

map

☐

large beautiful house

☐

place where metals are made and shaped

1.

contemplate

2. extract

3. gamble

4. launch

5. provoke

6. revive

☐

think about deeply

☐

bring back to health

☐

make someone angry

1.

demonstrate

2. embarrass

3. heave

4. obscure

5. relax

6. shatter

☐

have a rest

☐

break suddenly into small pieces

☐

make someone feel shy or nervous

1. correspond

2. embroider

3. lurk

4. penetrate

5. prescribe

6. resent

☐

exchange letters

☐

hide and wait for someone

☐

feel angry about something

1. decent

2. frail

3. harsh

4. incredible

5. municipal

6. specific

☐

weak

☐

concerning a city

☐

difficult to believe

1. adequate

2. internal

3. mature

4. profound

5. solitary

6. tragic

☐

enough

☐

fully grown

☐

alone away from other things

Academic Vocabulary

1. area
2. contract ☐ written agreement
3. definition ☐ way of doing something
4. evidence ☐ reason for believing something is or is not true
5. method
6. role

1. debate
2. exposure ☐ plan
3. integration ☐ choice
4. option ☐ joining something into a whole
5. scheme
6. stability

1. access
2. gender ☐ male or female
3. implementation ☐ study of the mind
4. license ☐ entrance or way in
5. orientation
6. psychology

1. accumulation
2. edition ☐ collecting things over time
3. guarantee ☐ promise to repair a broken product
4. media ☐ feeling a strong reason or need to do something
5. motivation
6. phenomenon

1. adult
2. exploitation ☐ end
3. infrastructure ☐ machine used to move people or goods
4. schedule ☐ list of things to do at certain times
5. termination
6. vehicle

1. alter
2. coincide ☐ change
3. deny ☐ say something is not true
4. devote ☐ describe clearly and exactly
5. release
6. specify

1. correspond
2. diminish ☐ keep
3. emerge ☐ match or be in agreement with
4. highlight ☐ give special attention to something
5. invoke
6. retain

1. bond
2. channel ☐ make smaller
3. estimate ☐ guess the number or size of something
4. identify ☐ recognizing and naming a person or thing
5. mediate
6. minimize

1. explicit
2. final ☐ last
3. negative ☐ stiff
4. professional ☐ meaning 'no' or 'not'
5. rigid
6. sole

1. abstract
2. adjacent ☐ next to
3. controversial ☐ added to
4. global ☐ concerning the whole world
5. neutral
6. supplementary

10,000 Level

1. alabaster
2. chandelier ☐ small barrel
3. dogma ☐ soft white stone
4. keg ☐ tool for shaping wood
5. rasp
6. tentacle

1. bourgeois
2. brocade ☐ middle class people
3. consonant ☐ row or level of something
4. prelude ☐ cloth with a pattern of gold or silver threads
5. stupor
6. tier

1. alkali
2. banter ☐ light joking talk
3. coop ☐ a rank of British nobility
4. mosaic ☐ picture made of small pieces of glass or stone
5. stealth
6. viscount

1. contaminate
2. cringe ☐ write carelessly
3. immerse ☐ move back because of fear
4. peek ☐ put something under water
5. relay
6. scrawl

1. illicit
2. lewd ☐ immense
3. mammoth ☐ against the law
4. slick ☐ wanting revenge
5. temporal
6. vindictive

1. benevolence
2. convoy ☐ kindness
3. lien ☐ set of musical notes
4. octave ☐ speed control for an engine
5. stint
6. throttle

1. alcove
2. impetus ☐ priest
3. maggot ☐ release from prison early
4. parole ☐ medicine to put on wounds
5. salve
6. vicar

1. dissipate
2. flaunt ☐ steal
3. impede ☐ scatter or vanish
4. loot ☐ twist the body about uncomfortably
5. squirm
6. vie

1. blurt
2. dabble ☐ walk in a proud way
3. dent ☐ kill by squeezing someone's throat
4. pacify ☐ say suddenly without thinking
5. strangle
6. swagger

1. indolent
2. nocturnal ☐ lazy
3. obsolete ☐ no longer used
4. torrid ☐ clever and tricky
5. translucent
6. wily

Productive Vocabulary Levels Test

1. Para vincular su cuestionario a las otras partes del estudio, complete su código personal aquí (EN MAYÚSCULAS):

Ejemplo: María, Susana, Marzo = MAS03

1. Primera y segunda letra de su nombre

2. Primera letra del nombre de su madre

3. MES en el que usted nació (ejemplo: 03)

Instrucciones: Hay 90 preguntas. Llene el espacio en blanco para completar la palabra.

No es necesaria ortografía correcta.

Example: He was riding a bicycle.

1) I'm glad we had this opp to talk.

2) He has a successful car as a lawyer.

3) Soldiers usually swear an oa of loyalty to their country.

4) There has been a recent tr among prosperous families toward a smaller number of children.

5) The baby is wet. Her dia needs changing.

6) There are a doz eggs in the basket.

7) The thieves threw ac in his face and made him blind.

8) The voter placed the ball in the box.

9) The ar of his office is 25 square meters.

10) The prisoner was released on par .

11) Every working person must pay income t .

12) To improve the country's economy, the government decided on economic ref .

13) They keep their valuables in a vau at the bank.

14) Phil examines the meaning of life.

- 15) Second year university students in the US are called soph .
- 16) The pirates buried the trea on a desert island.
- 17) She wore a beautiful green go to the ball.
- 18) A bird perched at the window led .
- 19) According to the communist doc , workers should rule the world.
- 20) Her favorite flowers were or .
- 21) Her beauty and ch had a powerful effect on men.
- 22) The government tried to protect the country's industry by reducing the imp of cheap goods.
- 23) The kitten is playing with a ball of ya .
- 24) Spending many years together deepened their inti .
- 25) The insect causes damage to plants by its toxic sec .
- 26) La of rain led to a shortage of water in the city.
- 27) The children's games were amusing at first, but finally got on the parents' ner .
- 28) The thieves have forced an ent into the building.
- 29) He usually read the sports sec of the newspaper first.
- 30) The evacu of the building saved many lives.
- 31) He takes cr and sugar in his coffee.
- 32) The lawyer gave some wise coun to his client.
- 33) The small hill was really a burial mou .
- 34) Because of the doctors' strike, the cli is closed today.
- 35) For many people, wealth is a prospect of unimaginable felic .
- 36) The rich man died and left all his we to his son.
- 37) Many people in England mow the la of their houses on Sunday morning.
- 38) We decided to celebrate New Year's E together.
- 39) There are several misprints on each page of this te .
- 40) She found herself in a pred without any hope for a solution.
- 41) Pup must hand in their papers by the end of the week.
- 42) The farmer sells the eggs that his he lays.
- 43) The soldier was asked to choose between infantry and cav .
- 44) The suspect had both opportunity and mot to commit the murder.
- 45) The deac helped with the care of the poor of the parish.
- 46) This sweater is too tight. It needs to be stret .

- 47) Sudden noises at night sca [] me a lot.
- 48) This is a complex problem that is difficult to comp [].
- 49) They insp [] all products before sending them out to stores.
- 50) The hurricane whi [] along the coast.
- 51) Ann intro [] her boyfriend to her mother.
- 52) France was proc [] a republic in the 18th century.
- 53) The angry crowd sho [] the prisoner as he was leaving the court.
- 54) A considerable amount of evidence was accum [] during the investigation.
- 55) Some coal was still smol [] among the ashes.
- 56) Teenagers often adm [] and worship pop singers.
- 57) Many people are inj [] in road accidents every year.
- 58) Don't pay attention to this rude remark. Just ig [] it.
- 59) The victim's shirt was satu [] with blood.
- 60) The dead bodies were mutil [] beyond recognition.
- 61) If you blow up that balloon any more it will bu [].
- 62) Suddenly he was thru [] into the dark room.
- 63) The management held a secret meeting. The issues discussed were not disc [] to the workers.
- 64) He is irresponsible. You cannot re [] on him for help.
- 65) She was sitting on a balcony and bas [] in the sun.
- 66) In order to be accepted into the university, he had to impr [] his grades.
- 67) He perc [] a light at the end of the tunnel.
- 68) We could hear the sergeant bel [] commands to the troops.
- 69) It's impossible to eva [] these results without knowing about the research methods that were used.
- 70) For years waves of invaders pill [] towns along the coast.
- 71) The telegram was deli [] two hours after it had been sent.
- 72) Children are not independent. They are att [] to their parents.
- 73) The boss got angry with the secretary and it took a lot of tact to soo [] him.
- 74) He finally att [] a position of power in the company.
- 75) The rescue attempt could not proceed quickly. It was imp [] by bad weather.
- 76) The differences were so sl [] that they went unnoticed.

- 77) She showed off her sle figure in a long narrow dress.
- 78) We do not have adeq information to make a decision.
- 79) The story tells about a crime and subs punishment.
- 80) I wouldn't hire him. He is unmotivated and indo .
- 81) The dress you're wearing is lov .
- 82) She has been changing partners often because she cannot have a sta relationship with one person.
- 83) She is not a child, but a mat woman. She can make her own decisions.
- 84) In a hom class all students are of a similar proficiency.
- 85) Computers have made typewriters old-fashioned and obs .
- 86) He wasn't very popu when he was a teenager, but he has many friends now.
- 87) You must wear a bathing suit on a public beach. You're not allowed to bath na .
- 88) The prisoner was put in soli confinement.
- 89) The urge to survive is inh in all creatures.
- 90) Watch out for his wil tricks.

10.5. How many words do you know?

How many English words do you know?

To learn any language, it is first important to learn the words! To enjoy a book in English, or a conversation in English, we need to know MOST of the words.

But, what words should we study?

Researchers have used computers to count the words in thousands of newspapers, magazines, movies, textbooks, and even conversations! Then, they created lists of the most common English words in thousands: 1000 most common, 2000 most common, etc...

Generally, when we study English, we learn the words in order starting from the most common words, then we study the less common words!

How many words should I learn?

Let's say you want to watch an English movie...

Using a computer, researchers were able to count all of the words in the movie: "Shrek"

If I know...	then I know...
1000 words	83% of the words in "Shrek"
2000 words	88%
3000 words	94%
4000 words	97%
5000 words	97.6%
6000 words	98%

Of course, **Learning More Words = Better Understanding!**

What about other things?

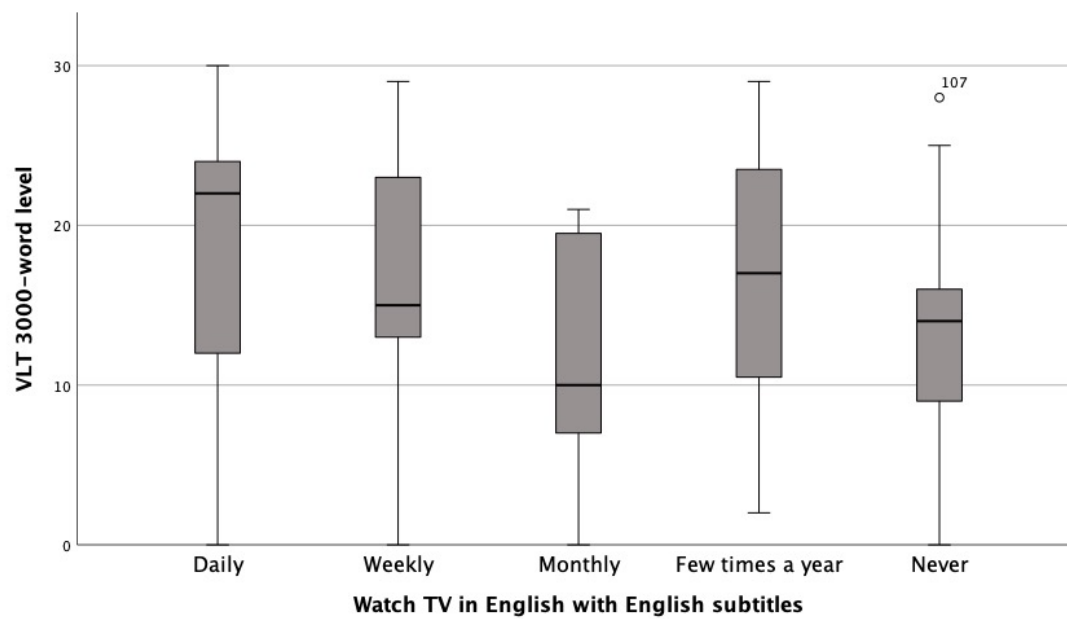
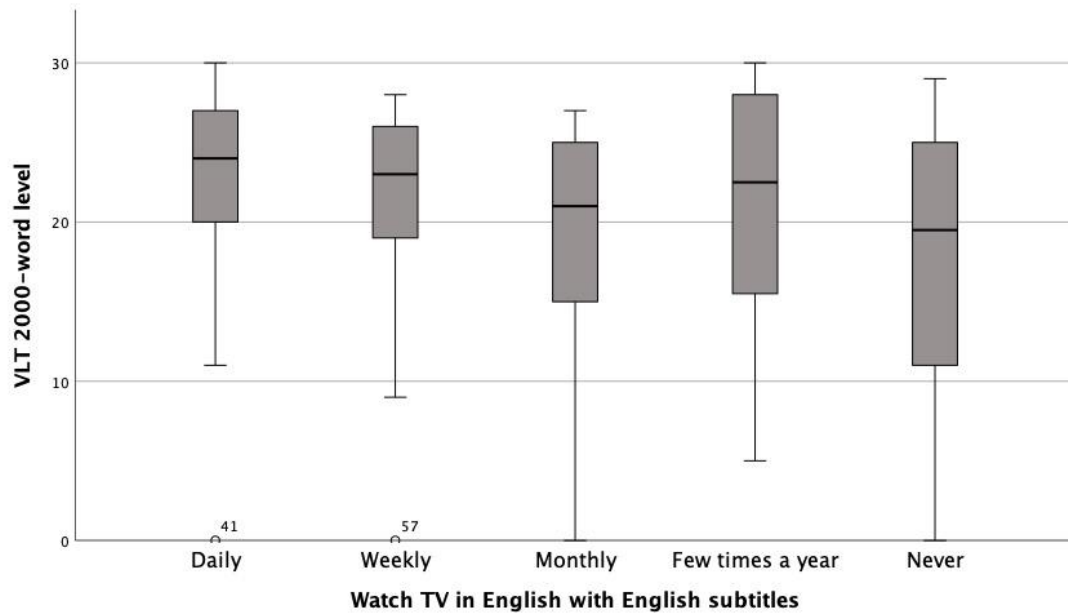
If you would you like to...	For 95% you need...	For 98% you need...
Reading a novel	4000 words	8000 – 9000 words
Reading a newspaper	4000 words	8000 – 9000 words
Watching a children's movie	3000 words	6000 – 7000 words
Listening to a native speaker's conversation	3000 words	6000 – 7000 words

Nation, I. S. (2006). How large a vocabulary is needed for reading and listening?. *Canadian Modern Language Review/La revue canadienne des langues vivantes*, 63(1), 59-82.

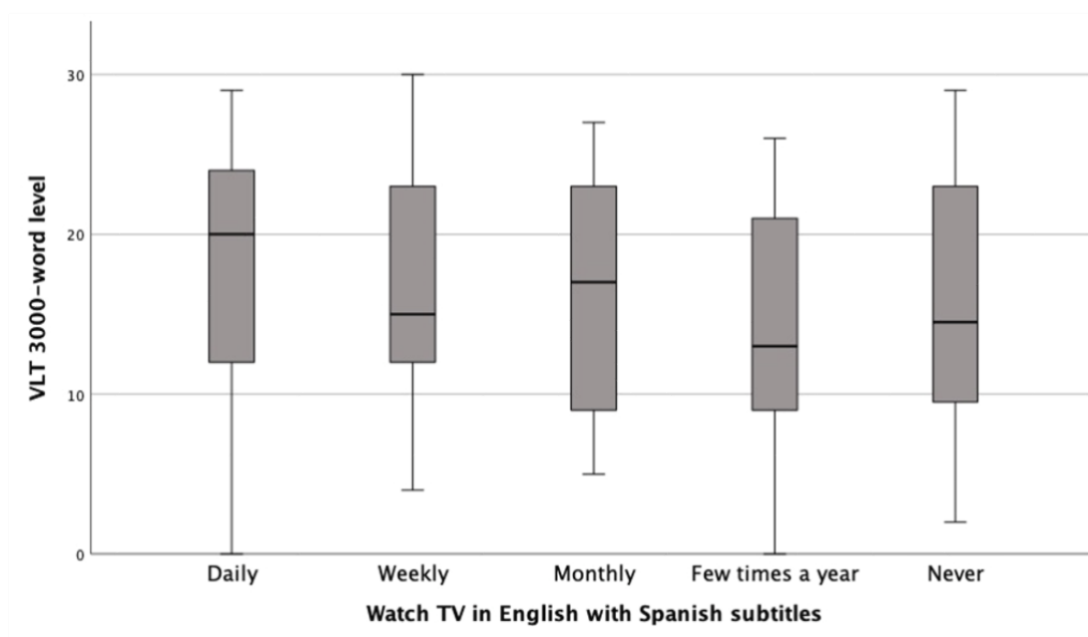
Tanaka and Pathrakorn (2018: 97).

10.6. Boxplots EE activities and receptive vocabulary size

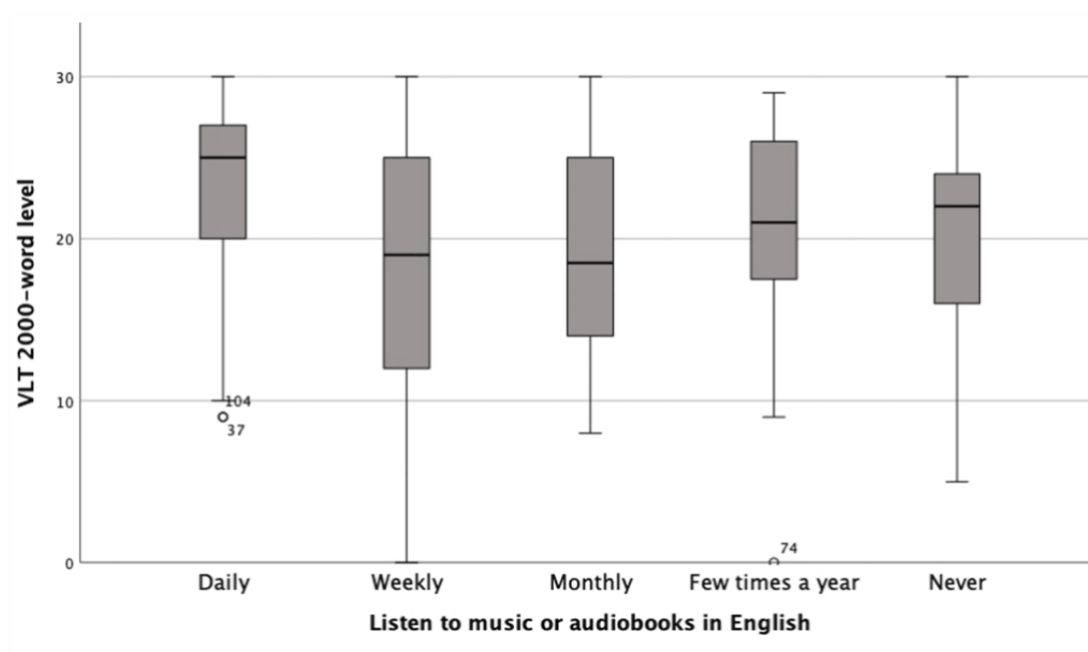
EE activity: Watch TV in English with English subtitles



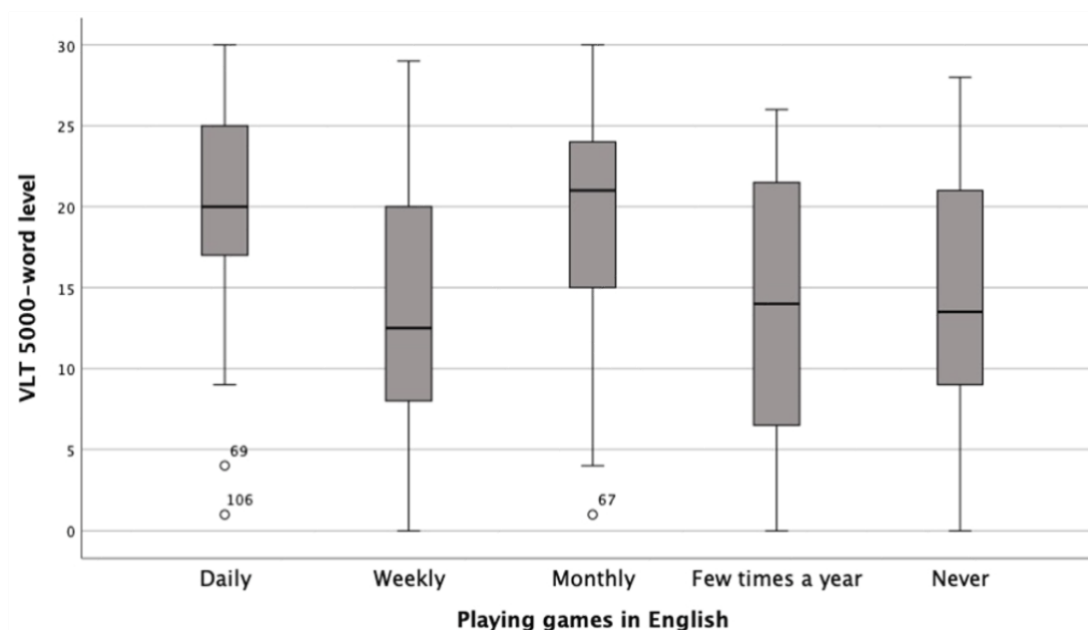
EE activity: Watch TV in English with Spanish subtitles



EE activity: Listen to music or audiobooks in English (2,000-word level)

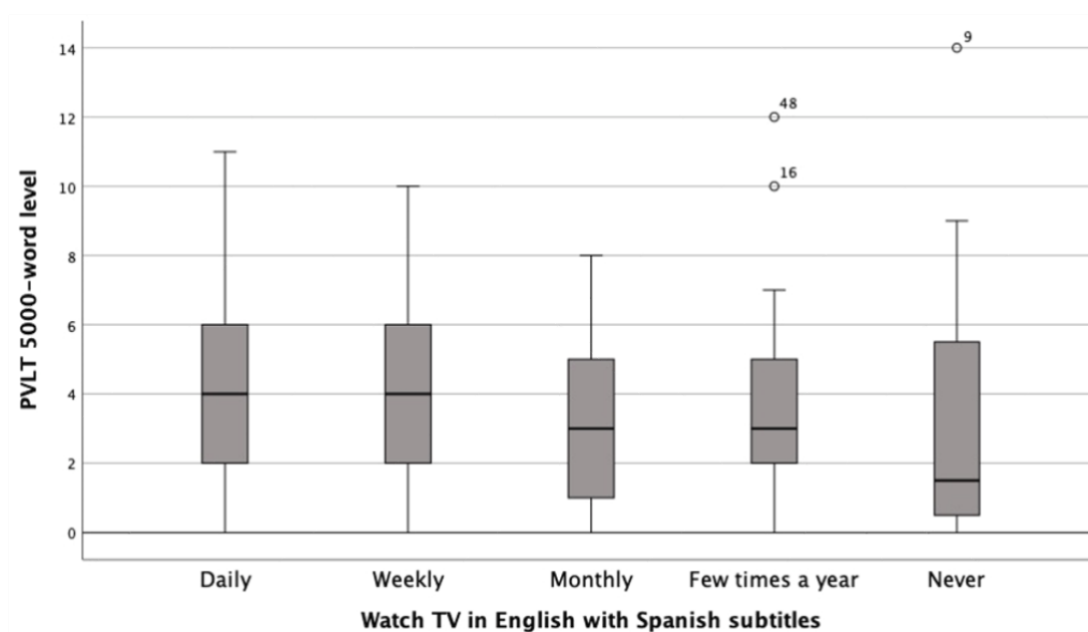


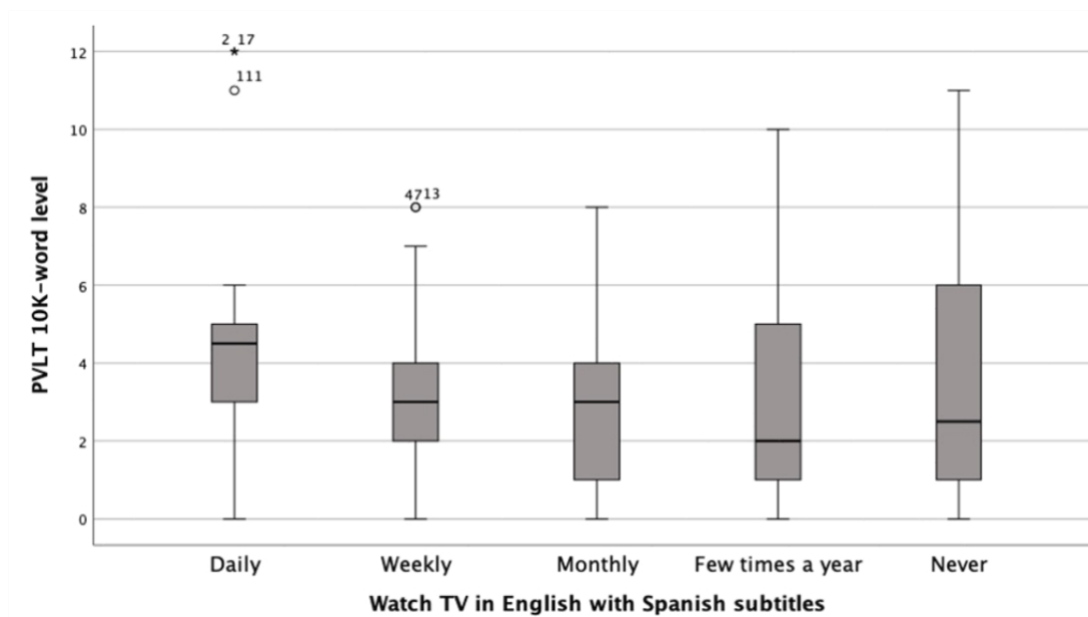
EE activity: Playing games in English (5,000-word level)



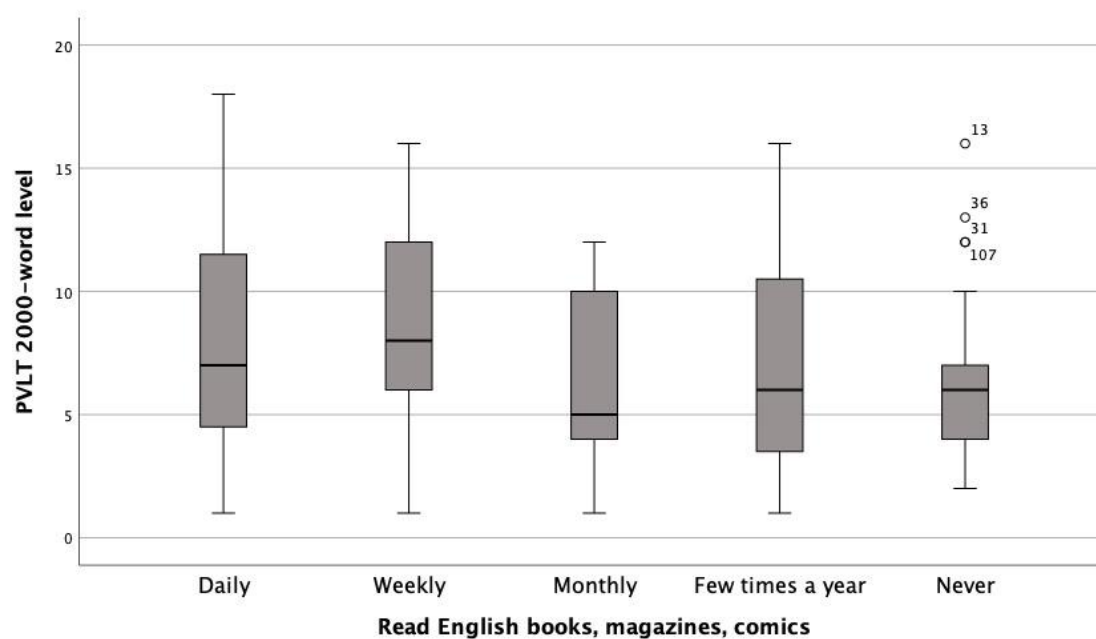
10.7. Boxplots EE activities and productive vocabulary size

EE activity: Watch TV in English with Spanish subtitles (5,000 & 10K-word levels)





EE activity: Reading books, magazines, comics in English (2,000-word level)



EE activity: Chat or speak in English (2,000 & 3,000-word level)

