

THE IMPACT OF EXPOSURE ON THE RECEPTIVE VOCABULARY SIZE OF FLEMISH PUPILS

COMPARING THE EFFECT OF INCIDENTAL ENGLISH ACQUISITION
WITH THAT OF FORMAL FRENCH INSTRUCTION

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1 INTRODUCTION

English has become ubiquitous in many parts of the world, and Flanders, the Dutch-speaking area of Belgium, is no exception. In fact, English appears to have infiltrated Flemish society to such an extent that it has overshadowed French, the main official language of Belgium alongside Dutch. Indeed, nowadays a plethora of purchased TV programmes and films in Flanders are in English (with Dutch subtitles), the majority of songs on the radio have English lyrics, an increasing number of commercials contain English words or expressions, Flemish universities often provide part of their courses in English, for an increasing number of jobs knowledge of English seems required, et cetera. French, on the other hand, appears to have all but disappeared from Flemings' everyday life, despite it once being the only official language of Belgium (Blommaert, 2011; Vande Lanotte & Goedertier, 2010).

Nevertheless, French still plays a more prominent role in Flemish education compared to English. Indeed, French classes are compulsory for pupils from the fifth year of primary school onwards¹. In contrast, English instruction does not become mandatory up until the second year of secondary school², when the vast majority of students are 13 to 14 years old.

Notwithstanding the rather late onset of English instruction, previous studies have found that Flemish pupils already have considerable knowledge of the language before embarking on such lessons (De Jans, 2013; De Wilde & Eyckmans, 2017; Kuppens, 2007; Merlaen, 2013; Van Hoecke, 2017; Willems, 2015). This knowledge has been attributed to the great and easy access to authentic English input in Flemish society, which allows Flemings to gradually and incidentally acquire the language in an informal manner (De Wilde & Eyckmans, 2017; Kuppens, 2007).

¹ Art. 43, §1, chapter 5 of the Flemish Decree on primary school education of 16 June 2017, *Belgisch Staatsblad* 18 August 2017. Retrieved from:

<https://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=12254#135338>.

² Art. 154, §2, chapter 4 of the Flemish Decree on secondary school education of 17 December 2010, *Belgisch Staatsblad* 24 June 2011. Retrieved from:

<http://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=14289#301960>

This incidentally acquired English knowledge has created a false beginners' status among Flemish pupils, which can be problematic. Considering that some children are more exposed to English than others, a class can comprise pupils who, on the one hand, have already reached all the curriculum objectives before the start of instruction, and pupils who, on the other hand, barely know any English yet (De Wilde & Eyckmans, 2017). Consequently, it can be quite difficult for English teachers to keep the former motivated, and the latter encouraged.

Since understanding the issue constitutes the first step towards finding an appropriate solution, this research aims to provide insights into the development of incidental English acquisition in Flemish children and to compare its impact with that of the formal French instruction these children have already received. While the aforementioned studies have demonstrated a positive impact of English exposure on the level of proficiency of Flemish pupils, very little research has contrasted the gains of such incidental acquisition with the gains of formal instruction. To my knowledge, only Van Hoecke (2017) has done so by comparing Flemish pupils' English vocabulary size prior to instruction to their French vocabulary size after receiving one year of instruction.

Following Van Hoecke's (2017) example, this study, situated in the field of Second Language Acquisition, will draw a comparison between the English and the French receptive vocabulary size of Flemish pupils in the sixth form of primary school, and explore a number of individual differences that may have affected the pupils' language knowledge. In accordance with Van Hoecke (2017), the English and French receptive vocabulary size will be measured as an indicator of the participants' language skills. Furthermore, this research will take Van Hoecke's (2017) study one step further by looking at the potential effect of cognates on the vocabulary scores obtained for English and for French. Based on Van Hoecke's (2017) findings, it is hypothesised that the pupils' English vocabulary size and exposure to English will exceed their French vocabulary size and exposure to French.

The findings of this research will contribute to the work of the cluster 'Language Learning' of the Research Centre for Multilingual Practices and Language Learning in Society

(MULTIPLES-LL), which is part of the Department of Linguistics and the Department of Translation, Interpreting, and Communication at Ghent University.

This master's thesis starts out by providing the theoretical framework for the study in chapter 2. The chapter commences with a brief introduction to the field of Second Language Acquisition, which is followed by a section on second language vocabulary acquisition in specific. This section discusses the importance of vocabulary knowledge for language proficiency, the different types of lexical knowledge, the process of acquiring vocabulary, and a number of factors that can influence this process.

Chapter 3 to 7 then focus on the research itself. The design and the methodology are discussed in chapter 3. Firstly, the aims and the research questions are considered. Secondly, the methodology is elaborated on, providing details on the participants, the instruments, the procedure and the setting of this empirical study. Subsequently, chapter 4 provides an overview of the results, and chapter 5 discusses the interpretation of those results. Lastly, chapter 6 concludes the research by reiterating the main findings of the study, listing its limitations and suggesting future research venues.

2 THEORETICAL BACKGROUND

2.1 An introduction to Second Language Acquisition (SLA)

2.1.1 Defining and situating SLA

Second Language Acquisition or SLA is a field of study that focusses on the manner in which people acquire a language or languages different from their mother tongue, i.e. second languages (see *infra* 2.1.2.1) (Gass, Behney, & Plonsky, 2013; Ortega, 2013; Saville-Troike & Barto, 2017). Nevertheless, the abbreviation ‘SLA’ does not solely refer to the field of study, but can also be used to refer to the object of study, that is the process of acquiring second languages (Saville-Troike & Barto, 2017). To avoid confusion in this master’s thesis, ‘SLA’ will be used to relate to the discipline, and ‘L2 acquisition’ or ‘second language acquisition’ to relate to the process of learning second languages.

SLA is an area of study that can be described as being both long-established and rather recent. The subject of L2 acquisition has aroused human curiosity for over centuries. Indeed, SLA can be traced back as far as the sixth or seventh century CE, when Latin shifted from being a widely spoken native language to a mostly foreign language. Since the language still remained prominent in education and Christianity, Roman scholars had to find a way to formally instruct that language to schoolchildren. In doing so, they took the first steps in conceptualising the nature of second language acquisition. Nevertheless, many modern scholars situate the origin of SLA as a field of study in the second half of the twentieth century, when SLA was first identified as a scientific and autonomous discipline (Herschensohn & Young-Scholten, 2013; Ortega, 2013).

SLA is also a highly multidisciplinary field of study. Throughout the years, scholars from various backgrounds have provided insights into the process of acquiring second languages (Gass et al., 2013). These insights primarily come from within linguistics, psychology, and their subfields of applied linguistics, psycholinguistics, sociolinguistics, and

social psychology (Saville-Troike & Barto, 2017). Depending on the field in which researchers operate, different aspects of L2 acquisition are emphasized:

- Linguists generally focus on the linguistic distance between the languages that are being learned, and the knowledge and production of these languages at various stages of the learning process;
- Psychologists and psycholinguists generally concentrate on the cognitive processes that are involved in L2 acquisition as well as the way in which languages are represented in the brain;
- Sociolinguists generally underline variability in the linguistic performance of language learners and broaden the scope of study to communicative competence, i.e. knowledge on how to communicate appropriately within a particular language community;
- Social psychologists generally highlight group-related factors of L2 acquisition, such as identity and social motivation, as well as the interactional and broader social contexts of learning;
- Applied linguists draw from any or multiple of the aforementioned perspectives in their SLA research and are generally concerned with the implications of their findings for L2 teaching (Saville-Troike & Barto, 2017).

The interdisciplinary character of SLA research poses advantages and disadvantages. The advantage is that the multiplicity of perspectives provides more detailed and more in-depth insights into the process of learning second languages. The disadvantage is that it can create confusion. Indeed, each (sub)discipline mentioned above has its own methodology and theoretical frameworks to gather and interpret data, which can result in seemingly conflicting understandings of L2 acquisition (Gass et al., 2013; Saville-Troike & Barto, 2017). Ultimately, there is not one of the aforementioned perspective that is more correct than the other ones. All are needed to shed light on the complexity of L2 acquisition (Saville-Troike & Barto, 2017).

2.1.2 Basic terminological issues in SLA

2.1.2.1 *Second versus foreign language*

Within SLA literature, distinctions can be found between the terms ‘second language’ and ‘foreign language’ based on the context in which non-native languages are acquired (R. Ellis, 2015; Gass et al., 2013). A foreign language usually refers to an instructed non-native language that is learned in an environment where the primary language remains most prominent, whereas a second language refers to a non-native language that is acquired in an environment where that L2 is most commonly spoken. For instance, English is a foreign language for Flemings learning English in Belgium, but a second language for Flemings learning English in the United Kingdom (Gass et al., 2013).

However, this distinction is not made when referring to the study of SLA (R. Ellis, 2015). Indeed, despite the name ‘*Second Language Acquisition*’, this field of study examines the process of acquiring any language in addition to the mother tongue (R. Ellis, 2015; Gass et al., 2013). In other words, ‘second language acquisition’ or ‘L2 acquisition’ have become the generic terms to refer to both foreign language acquisition, which takes place through formal instruction, and second language acquisition, which takes place through non-instructed or a mix of instructed and non-instructed learning (R. Ellis, 2015).

Therefore, the terms ‘second language acquisition’ or ‘L2 acquisition’ and ‘second language’ or ‘L2’ will be used in this master’s thesis as an all-inclusive term comprising both foreign and second languages (R. Ellis, 2015).

2.1.2.2 *Acquisition versus learning*

Another construct that has caused confusion and controversy within the study of SLA is the term ‘acquisition’ in contrast with ‘learning’ (De Bot, Lowie, & Verspoor, 2005; R. Ellis, 2015). While some scholars use the terms ‘acquisition’ and ‘learning’ interchangeably, others draw a distinction between the two by defining ‘acquisition’ as a nonconscious process and

'learning' as a conscious one (Richards & Schmidt, 2013). Acquiring a language is then equated with the process of organically developing knowledge of and skills in a language. Learning a language, on the other hand, implies deliberately focussing on and studying the language rules (De Bot et al., 2005).

This understanding of acquisition and learning dates back to the late 1970s and early 1980s, when Stephen D. Krashen put forward his Monitor Model, an influential theory of L2 acquisition (Gass et al., 2013; Herschensohn & Young-Scholten, 2013; Krashen, 1982). At the basis of this Monitor Model, composed of five different hypotheses, lies the Acquisition-Learning Hypothesis, which posits that there are two different ways of developing L2 skills, namely through acquisition and through learning (De Bot et al., 2005; Gass et al., 2013; Krashen, 1982). Krashen defined language acquisition as a "subconscious process" and language learning as "conscious knowledge" (Krashen, 1982, p. 10). He maintains that language acquisition equals taking in a language without making any conscious effort to master it (R. Ellis, 2015; Krashen, 1982). The only thing individuals are aware of when acquiring a language is the fact that they are using that language to communicate. Language learning, on the other hand, refers to the conscious knowledge of that language, meaning that individuals are aware of the rules and are able to discuss them (Krashen, 1982).

In addition, Krashen's Monitor Model assumes that these two ways of language development are completely independent from each other and fulfil an entirely different purpose (Gass et al., 2013; Krashen, 1982). Krashen postulates that the acquisition and the learning system are internalised separately, meaning that learned knowledge can never become acquired knowledge (Gass et al., 2013; Krashen, 1982). In other words, studying the rules of a language does not automatically result in a correct production of that language (De Bot et al., 2005; Krashen, 1982). Language production and fluency, the purpose of acquisition, can only occur when individuals are exposed to input that is one stage higher than their current language level (Krashen, 1982). The learning system merely monitors or edits the output of the acquired system (Gass et al., 2013; Krashen, 1982). Nevertheless, the only manner in which the learning system can actually serve its purpose, is when three conditions are met: language learners have

sufficient time to recall and use the studied rule(s), they pay attention to the form of their utterances, and they know the rule(s) (Krashen, 1982).

However, Krashen's Monitor Model, which was only briefly and partly touched upon in this subsection, did not remain uncriticised. One of the points of critique was that Krashen failed to adequately specify the meaning of the words 'subconscious' and 'conscious' when defining language acquisition and learning (De Bot et al., 2005; R. Ellis et al., 2009; Gass et al., 2013). Schmidt (1990) emphasized the highly ambiguous nature of the term 'consciousness'. For instance, does the term 'unconscious' or 'subconscious' imply that the learner is not aware of having learned something, or that he or she did not intend to learn something (Paradis, 2004; Schmidt, 1990)? Considering the vagueness surrounding the concept of consciousness, most SLA scholars nowadays frame their research by means of more tractable and relatively more transparent terms such as implicit/explicit learning or incidental/intentional learning (see *infra* 2.1.2.3 and 2.1.2.4) (Richards & Schmidt, 2013).

Considering that the acquisition-learning distinction remains blurry and that this contrast does not constitute the main focus of this research, the terms 'acquisition' and 'learning' as well as 'to acquire' and 'to learn' will be used interchangeably in this master's thesis. This is in line with the general usage of these concepts in SLA literature (R. Ellis, 2015).

2.1.2.3 *Implicit versus explicit learning*

Closely related to the acquisition-learning contrast is the distinction between implicit and explicit learning, which originated in the field of cognitive psychology (De Bot et al., 2005; Ma, 2009). While the definitions of these concepts are formulated more precisely than those of 'acquisition' and 'learning', there still appears to be a lack of consensus (Richards & Schmidt, 2013). Broadly, there are three main ways in which implicit and explicit learning have been distinguished from one another: (1) Explicit learning includes conscious operations such as hypothesis formation and testing, whereas implicit learning does not; (2) Explicit learning implies that language learners are aware of what has been learned, contrary to implicit learning;

(3) Explicit learning involves awareness that one is learning, whereas implicit learning does not (Richards & Schmidt, 2013).

The lack of consensus on how to define implicit and explicit learning results from the controversy about awareness (Richards & Schmidt, 2013). Consciousness is generally equated with awareness in this context (Rieder, 2003). Accordingly, the contrast between implicit and explicit learning is often associated with the contrast between being unaware and being aware (R. Ellis et al., 2009; Richards & Schmidt, 2013). However, just as the terms ‘conscious’ and ‘unconscious’ created confusion (see *supra* 2.1.2.2), the concept of awareness is not unequivocal either (R. Ellis et al., 2009).

Indeed, Schmidt (1990, 2012) proposes to distinguish between awareness as ‘noticing’ and awareness as ‘understanding’. ‘Noticing’ then involves consciously registering particular instances of a language that are attended to, whereas ‘understanding’ involves metalinguistic awareness³ of all kinds and knowledge of the abstract rule(s) which underlie(s) certain linguistic phenomena (R. Ellis et al., 2009; Schmidt, 2012). Subsequently, Schmidt (2012) postulates that awareness as noticing is required for L2 acquisition, and that awareness as understanding is merely facilitative. In other words, Schmidt (2012) maintains that noticing and attention are prerequisites for learning to take place at all, a theory referred to as the Noticing Hypothesis. Understanding, on the other hand, cannot be essential to language learning, as native speakers clearly possess an intuitive understanding of their mother tongue without necessarily being able to verbalise this knowledge (Schmidt, 2012).

As follows from this perspective, implicit learning without any form of awareness is not possible since language learning always requires some level of noticing and attention. Thus, instead of formulating the contrast between implicit and explicit learning in terms of being

³ Metalinguistic awareness can be defined as the ability to think about and manipulate the structural characteristics of a language. The concept of metalinguistic awareness is often subcategorised depending on the linguistic structures that are involved. For instance, metasyntactic awareness concerns the reflexion on and the manipulation of the word order in sentences (Wagner, Muse, & Tannenbaum, 2007).

unaware and aware, it would be better to interpret it as the difference between learning without and with metalinguistic awareness respectively (R. Ellis et al., 2009).

However, Schmidt's (1990, 2012) views did not remain unchallenged. While many scholars of various disciplines within SLA have supported Schmidt's theory, others have refuted it (Schmidt, 2012). For instance, some question the claim that learning without any awareness is impossible (Gass et al., 2013). Consequently, there is no consensus yet on the way in which implicit and explicit learning should be defined. Nevertheless, all theorists appear to agree that implicit learning excludes metalinguistic awareness (R. Ellis et al., 2009).

N.C. Ellis (as cited in R. Ellis et al., 2009, p. 5) describes the distinction between implicit and explicit learning as follows:

Some things we just come able to do, like walking, recognizing happiness in others, knowing that *th* is more common than *tg* in written English, or making simple utterances in our native language. We have little insight into the nature of the processing involved – we learn to do them implicitly like swallows learn to fly. Other of our abilities depend on knowing *how* to do them, like multiplication, playing chess, speaking pig Latin, or using a computer programming language. We learn these abilities explicitly like aircraft designers learn aerodynamics. (N. C. Ellis, 1994, p. 1 as cited in R. Ellis et al., 2009, p. 5)

2.1.2.4 *Incidental versus intentional learning*

Whereas consciousness in the implicit-explicit learning debate is related to awareness, consciousness in an incidental-intentional learning context is usually associated with intention (Schmidt, 1990, 2012). Consequently, incidental learning is commonly defined as the process of learning something without intending to do so, or as learning something while actually intending to learn something else (Richards & Schmidt, 2013). A prime example of incidental learning is acquiring vocabulary while reading. Ordinarily, the main goal of reading is to understand and enjoy the story, not to expand vocabulary knowledge (Richards & Schmidt,

2013; Schmidt, 2012). Accordingly, intentional learning constitutes the converse. An example of intentional learning is studying decontextualized words from a bilingual vocabulary list (De Bot et al., 2005).

However, the distinction between incidental and intentional learning is not always clear-cut. For instance, when a person encounters a word he or she does not know while reading for pleasure but succeeds in inferring the meaning of that word from context, incidental learning has taken place. On the other hand, if a person is instructed to read a text and infer the signification of unknown words from context, learning becomes intentional (De Bot et al., 2005).

The constructs of incidental and intentional learning were first employed in behavioural psychology and are most commonly used in research on vocabulary acquisition, where ‘incidental’ is sometimes wrongfully equated with ‘implicit’. Indeed, learning something without intending to do so and learning something without being aware of it appear to be quite similar (Ma, 2009; Rieder, 2003). Nevertheless, Rieder (2003) refutes this theory by demonstrating that incidental vocabulary acquisition can comprise both implicit and explicit learning. Based on empirical observations, she maintains that form learning of unknown words occurs through implicit learning, although explicit learning mechanisms, i.e. explicit focus on the form, can have a facilitating effect on form learning. Inferring unknown word meanings, on the other hand, tends to take place through explicit learning.

2.2 Second language vocabulary acquisition

2.2.1 The importance of lexicon for language learning

Whereas the importance of vocabulary knowledge for language learning used to be downplayed in SLA research, it has recently gained more attention (Gass et al., 2013; Herschensohn & Young-Scholten, 2013). In fact, Gass et al. (2013, p. 194) suggests that “lexicon may be the most important language component for learners”. Indeed, limited vocabulary knowledge greatly impedes fluent communication (Alqahtani, 2015; Herschensohn

& Young-Scholten, 2013). Therefore, some scholars regard vocabulary knowledge as the driver of language production and reception, and expansion of the lexicon as an integral part of developing overall language proficiency. While there is no strong causal proof yet for these claims, vocabulary surely seems to expand in depth and size alongside every other aspect of language (Bardel, Lindqvist, & Laufer, 2013; Gass et al., 2013; Herschensohn & Young-Scholten, 2013).

2.2.2 Types of lexical knowledge

2.2.2.1 *Form, meaning, and use*

Complete knowledge of a word involves much more than merely linking its form to its correct meaning (Gass et al., 2013; Herschensohn & Young-Scholten, 2013; Nation, 2013). This becomes clear when looking at the table below, which portrays the different degrees of vocabulary knowledge as discerned by Nation (2001, 2013).

Form	spoken	R	What does the word sound like?
		P	How is the word pronounced?
	written	R	What does the word look like?
		P	How is the word written and spelled?
	word parts	R	What parts are recognizable in this word?
		P	What word parts are needed to express meaning?
Meaning	form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	concepts and referents	R	What is included in the concept?
		P	What items can the concept refer to?
	associations	R	What other words does this word make us think of?

		P	What other words could we use instead of this one?
Use	grammatical functions	R	In what patterns does the word occur?
		P	In what patterns must we use this word?
	collocations	R	What words or types of words occur with this one?
		P	What words or types of words must we use with this one?
	constraints on use	R	Where, when and how often would we meet this word?
		P	Where, when and how often can we use this word?
(R = receptive, P = productive)			

Table 1: What is involved in knowing a word (from Nation 2001, p.27)

Nation (2001) distinguishes form, meaning, and use as the building blocks of lexical knowledge. Those three components each comprise three different constructs which, in turn, can each be divided into receptive and productive knowledge. These last two concepts will be discussed in the subsection below.

2.2.2.2 Receptive and productive vocabulary knowledge

The difference between receptive and productive vocabulary knowledge lies in the difference between recognising and producing vocabulary (Ma, 2009). The contrast is often illustrated by means of the four elementary language skills, i.e. reading, listening, speaking, and writing (Ma, 2009; Nation, 2013). Nation (2013), for instance, argues that the term ‘receptive’ involves receiving language input through reading and listening, whereas ‘productive’ involves producing language through writing and speaking. Accordingly, receptive vocabulary knowledge constitutes the ability to recognise a word form and retrieve its meaning while reading or listening. Productive vocabulary knowledge refers to the ability to convey a message and to retrieve and produce the appropriate written or spoken word form (Nation, 2013).

In addition, there is considerable evidence suggesting that productive vocabulary knowledge constitutes a subpart of receptive vocabulary knowledge (Gass et al., 2013; Herschensohn & Young-Scholten, 2013, 2013; Ma, 2009; Nation, 2013). This implies that receptive lexical knowledge precedes and exceeds productive knowledge (Ma, 2009). This can be explained by the substantially more complex nature of vocabulary production (Mondria & Wiersma, 2004).

Furthermore, it should be noted that most SLA scholars do not regard the difference between receptive and productive vocabulary knowledge as a dichotomy, but rather as a continuum (Gass et al., 2013; Herschensohn & Young-Scholten, 2013; Ma, 2009; Stewart, Batty, & Bovee, 2012; Teichroew, 1982). In this continuum, recognition constitutes the initial stage of vocabulary acquisition, and eventually leads to the final stage of production (Gass et al., 2013; Herschensohn & Young-Scholten, 2013; Teichroew, 1982).

2.2.2.3 Breadth and depth of vocabulary knowledge

In accordance with receptive and productive vocabulary knowledge, breadth and depth also constitute different degrees of lexical knowledge. The difference between those two concepts can be encapsulated in the difference between quantity and quality (Gass et al., 2013; Herschensohn & Young-Scholten, 2013); Lexical breadth refers to a person's vocabulary size, i.e. the number of words he or she knows, whereas lexical depth refers to how well a person knows those words (Gass et al., 2013; Herschensohn & Young-Scholten, 2013; Ma, 2009). The latter can include meaning, semantic relationships with other words, syntactic patterning, collocations, pronunciation, etc. (Gass et al., 2013) The breadth-depth contrast explains, at least partially, why language learners or native speakers with similar vocabulary sizes can demonstrate various degrees of proficiency in their lexical performance (Herschensohn & Young-Scholten, 2013).

Even though lexical breadth and depth are commonly tested separately, it is far from certain that these dimensions operate completely independently. In fact, research indicates that scores on vocabulary breadth and depth tests often generate very high correlations (Gyllstad,

2007; Herschensohn & Young-Scholten, 2013). Therefore, some scholars suggest that breadth and depth should be regarded as one dimension, with depth constituting the end of the breadth dimension. This theory is based on the supposition that understanding the subtleties of word meaning and use, i.e. lexical depth, is realistically only possible if the vocabulary size is already rather extensive (Herschensohn & Young-Scholten, 2013; Vermeer, 2001).

2.2.3 The process of acquiring vocabulary

2.2.3.1 *From vocabulary input to vocabulary intake*

Two very important terms in the process of vocabulary acquisition are input and intake or uptake. Input is considered to be the main source for learning and refers to all the information that is available for perception, whereas intake or uptake is that part of the available information that is actually registered (De Bot et al., 2005; Richards & Schmidt, 2013). In terms of vocabulary acquisition, intake or uptake thus relates to that part of all the available vocabulary that is successfully processed and acquired so that it can be used and recognised in communication. Subsequently, input is the volume of words that is available for learning (Herschensohn & Young-Scholten, 2013).

In order for vocabulary input to become intake, the elements noticing, attention, repetition, and frequency play an important role (Herschensohn & Young-Scholten, 2013). Although there is no real consensus on the matter, most scholars agree that intake requires some level of noticing and attention (De Bot et al., 2005; Richards & Schmidt, 2013; Schmidt, 1990). In other words, intake is often portrayed as that part of the input that is noticed and attended to (Richards & Schmidt, 2013; Schmidt, 1990). Furthermore, repetition is thought to aid successful vocabulary acquisition if the repetition takes places in a variety of meaningful contexts rather than in isolation. Consequently, frequent words are more likely to be taken in than infrequent words, as high-frequency words (e.g. 'the' or 'be') are, by definition, repeated more often (Herschensohn & Young-Scholten, 2013).

2.2.3.2 *Learning vocabulary in formal and informal environments*

Carefully controlled studies of vocabulary uptake in classroom settings have reported that vocabulary instruction is a very efficient way to expand a person's lexicon. In fact, instruction is considered to be the principal source of vocabulary learning for the majority of language learners, particularly at the onset of learning. However, the average rate of uptake is estimated at five lemmatised words per classroom hour. Considering the often limited hours of instruction dedicated to L2 learning and the large lexicons of languages, becoming proficient in an L2 would prove to be a very lengthy process if one solely relied on formal education (Herschensohn & Young-Scholten, 2013).

Fortunately, language learners are also able to expand their L2 lexicon through extracurricular L2 exposure (Herschensohn & Young-Scholten, 2013; Rieder, 2003). Indeed, incidental vocabulary acquisition can occur by engaging in informal language-input activities such as listening to songs in the L2 or watching films in the L2 (Herschensohn & Young-Scholten, 2013). When language learners engage in such activities, their primary goal is usually not to acquire new vocabulary. Yet, research has demonstrated that this extracurricular exposure to the L2 can positively affect the L2 vocabulary size (De Wilde & Eyckmans, 2017; European Commission, 2012; Herschensohn & Young-Scholten, 2013; Jensen, 2016).

In the next paragraph, a number of extracurricular language-input activities and their impact on vocabulary knowledge will be addressed. These activities correspond with the ones on the questionnaires that were used for this research (see *infra* Appendix Questionnaires 1 and 2).

2.2.4 Extracurricular language-input activities and the second language lexicon

2.2.4.1 *Television in the second language without captions or subtitles*

Watching television programmes in the L2 is believed to be a valuable and popular resource for language learning. It provides language learners with a large amount of authentic

aural input in a short time, and it is often preferred over reading in the L2 (Webb, 2010). In fact, previous research discovered that watching television without captions or subtitles in the L2 is the second most frequently employed self-directed learning strategy among European students between the ages of 19 and 21 (Gieve & Clark, 2005; Webb, 2010).

Nevertheless, Webb & Rodgers (2009) argue that incidental vocabulary learning through L2 television exposure can only be significant when learners know the most frequent 3000 word families of the L2 and watch at least one hour of television a day. If these word families belong to a person's linguistic repertoire, he or she is likely to understand circa 95% of what is being said. This amounts to about three to four unknown words per minute of uninterrupted speech. Webb & Rodger (2009) consider this to be the ideal amount of coverage for language learners to gather the meaning of unknown words from context.

Webb & Rodgers' (2009) theory has been substantiated in previous studies. Bahrani & Sim (2012), for instance, found that the low-level language learners who were instructed to watch samples of films and especially cartoons performed better on the IELTS (International English Language Testing System) test than those who had to watch samples of news broadcasts. Bahrani & Sim (2012) ascribed this to the good story lines of cartoons and films, which appears to motivate the students to attend to the input more carefully, as well as the more complex nature of news reports which may be too difficult for L2 beginners. Indeed, the vocabulary used in news broadcasts is usually more advanced than that in films and cartoons. Furthermore, De Jans (2013) found that Flemish children who watched English television frequently, performed better on the PPVT-IV than those who did so less frequently or never.

2.2.4.2 Television in the second language with captions

While watching television in the L2 without subtitles or captions can have a positive impact on language learning and in specific on vocabulary acquisition, it is believed that on-screen text makes the impact even greater (Peters, Heynen, & Puimège, 2016; Sydorenko, 2010). One way of providing text on screen is by means of captions, i.e. intralingual subtitles. Danan (2004) argues that captions help language students become more proficient in their L2

because it offers them a visualisation of what is being said, which aids them to discern separate words from speech streams (Danan, 2004; Peters et al., 2016; Vanderplank, 2010). However, she notes that the input should not be too challenging, which concurs with Webb & Rodger's (2009) theory mentioned above (see supra 2.2.4.1).

Previous studies have provided empirical evidence for the positive influence of captions on L2 vocabulary acquisition. Winke, Gass, & Sydorenko (2010), for instance, reported that of the 150 intermediate to advanced language students at a US university who participated in their research, the group who was instructed to watch certain L2 videos with captions obtained the best results on both the aural and written vocabulary test, which required them to translate target words. Sydorenko (2010) found similar results for 26 introductory level Russian learners at a US university. Furthermore, captions do not only appear to help acquire word meaning, but they can also facilitate form learning, as has been demonstrated in several studies (Perez, Peters, Clarebout, & Desmet, 2014; Peters et al., 2016; Sydorenko, 2010).

2.2.4.3 Television in the second language with subtitles in the home language

Apart from captions, L2 television programmes and films can also be provided with subtitles in the L1, which also appears to have a positive impact on L2 acquisition. Indeed, L1 subtitling is thought to increase language comprehension and provide a greater vocabulary depth (Danan, 2004).

In fact, previous research suggests that beginners benefit more from interlingual subtitles than from intralingual subtitles, i.e. captions (Safar et al., 2011; Vanderplank, 2010). Bianchi & Ciabattini (2007), for instance, investigated the impact of L1 subtitles on the English proficiency of 107 Italian psychology students, and found that Italian subtitles proved to be more useful than captions for content and vocabulary comprehension, especially for L2 beginners. Lekka (2014) found similar results for Greek children between the ages of 9 and 12 who were required to watch a 15-minute cartoon in Italian either with or without Greek subtitles. In addition, Kuppens (2007) found that Flemish children who regularly watch

television with Dutch subtitles had a greater English vocabulary size than those who did so less frequently.

2.2.4.4 Music in the second language

Music is often considered to be a powerful tool in second language learning because of the simple, catchy, and authentic input it provides. Song lyrics are usually written in plain language, using many short and common words. Popular songs also offer authentic conversational speech input, and are very repetitive, which increases the odds of learning new words (Li & Brand, 2009; Murphey, 1992).

Li & Brand (2009) demonstrated the value of music for L2 learning. They found that out of 105 Chinese law students, the participants who had listened the most to English pop music obtained the best results on both the test immediately following treatment and the delayed one taken three weeks later. Both tests assessed the students' knowledge and understanding of the target words and their overall proficiency in English. In addition, the group with the most exposure to English music also reported having a more positive attitude towards their learning process and their ESL instruction.

Studies targeting Flemish students in particular also found a positive relation between the amount of English music exposure and the students' receptive vocabulary knowledge in English (Van Hoecke, 2017).

2.2.4.5 Reading in the second language

Pleasure reading is another informal way for language learners to expand their lexicon and is often encouraged by language teachers. While vocabulary can be explicitly learned through reading, for instance when a teacher instructs his or her students to read a text and infer the meaning of certain words from context, extensive reading, i.e. reading many long texts or books for pleasure with the focus on understanding the message instead of the language, is also

believed to be very beneficial for L2 learning (De Bot et al., 2005; Pigada & Schmitt, 2006; Renandya, 2007).

Pigada & Schmitt's (2006) case study investigated the impact of extensive reading on the overall lexical knowledge of particular words, that is knowledge of the meaning of those words, their spelling, and their grammatical characteristics. Considering that the study only involved one participant, they were able to use the time-consuming method of one-on-one interviews. The participant was 27 years old, spoke Greek natively and was considered to be an introductory level French student. He was given a list of seventeen books and was asked to select four to his interest and read them over the course of one month. Afterwards, the participant was tested on a 133 target words. The results indicated that his knowledge of 65% of the target words was in some way improved, which allowed for a pickup rate of circa 1 out of every 1.5 words tested. Form recognition was enhanced the most, even from a limited amount of exposure. Meaning and grammatical knowledge were also enhanced but to a lesser degree.

Furthermore, previous research suggests that in order for people to gather the meaning of unknown words from context while reading, at least 95% of the words need to be known (Hsueh-chao & Nation, 2000; Pigada & Schmitt, 2006). This concurs with Webb & Rodgers' (2009) findings for vocabulary acquisition through L2 television exposure.

2.2.4.6 Gaming in the second language

Gaming is another language-input activity that is quite popular among youngsters and that can be a valuable source for second language learning, especially for ESL (English as a Second Language) learners. Playing games, in particular massively multiplayer online role-playing games (MMORPGs), is believed to positively influence ESL learning. This is because such games do not only provide ample L2 input, but because they also commonly require interaction in the L2. The reason why gaming is mainly associated with the English language, is because English constitutes the default language of interaction and communication in most game environments (Sylvén & Sundqvist, 2012).

Sylvén & Sundqvist (2012) and Jensen (2016) found that English proficiency correlated with the amount of time individuals game and the type of games they play. The participants of Sylvén & Sundqvist's (2012) study were 86 Swedish children between the ages of 11 and 12, who were required to complete a questionnaire, a language diary, and three proficiency tests measuring their English vocabulary knowledge as well as their English reading and listening comprehension. The results indicated that pupils who game five hours or more per week performed better than moderate gamers who, in turn, performed better than non-gamers. Those findings were confirmed by Jensen (2016) who observed that, out of 49 eight-year-olds and 58 ten-year-olds from Denmark, those who gamed frequently obtained better scores on the PPVT-IV (Peabody Picture Vocabulary Test Fourth Edition) than those who gamed rarely ever.

Moreover, previous studies conducted in Flanders also confirmed that gaming can be beneficial for English proficiency. De Wilde & Eyckmans (2017) found that playing English games constituted a strong predictor for English writing, reading, speaking, and listening competence. These results were based on data gathered from 30 Flemish pupils between the ages of 11 and 12. Kuppens (2007), on the other hand, did not find a positive relation between gaming and the participants' scores on an oral vocabulary test. These participants were 374 Flemish pupils, also aged 11 to 12. However, the findings of her study did indicate that gaming positively influenced the degree of complexity of the participants' vocabulary knowledge.

2.2.4.7 Social media in the second language

Social media is a relatively new phenomenon that came into being after the introduction of Web 2.0 in 2004. The latter provided internet users with the possibility to create, distribute, share and manipulate all kinds of content, which led to the emergence of social media applications on the technological platform Web 2.0 (Zourou, 2012). Consequently, Kaplan & Haenlein (2010, p. 61) define social media as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content”.

These new and highly popular ways of communicating have gained the interest of many researchers in the field of language learning, especially those who specialize in computer-assisted language learning (CALL) (Dabbagh & Kitsantas, 2012; Zourou, 2012). Social media applications connect people from all over the world. Consequently, they provide language learners with the possibility to come into contact with authentic L2 input in various genres and styles of spoken and written discourse. Social media platforms such as YouTube also enable people to learn through repetition by pausing and/or rewinding videos (Richards, 2015). In addition, written communication on social media is usually rather succinct, and often accompanied by hashtags, pictures, and videos, which can motivate L2 learners to engage in the input (Lomicka & Lord, 2016). Therefore, social media applications are often believed to be valuable to L2 learning (Lamy & Zourou, 2013; Zourou, 2012).

Nevertheless, empirical research on the benefits of social media tools for L2 learning is rather scarce and does not remain undisputed (Halvorsen, 2009; Zourou, 2012). The reason why studies on this topic sometimes arouse controversy is due to the large variety of social media platforms that exist. Indeed, social media do not constitute one homogenous group (Zourou, 2012). Grahl (2013) (as cited in Lomicka & Lord, (2016) discerns no less than six distinctive but overlapping categories for social media: (1) social networks such as Facebook or LinkedIn; (2) bookmarking sites such as Delicious or StumbleUpon; (3) social news such as Reddit; (4) media sharing such as Instagram or YouTube; (5) microblogging such as Twitter; (6) blogging, in particular forums and comments. Consequently, it is difficult to examine the benefits of social media as a whole, since it is not scientifically sound to examine the potential of one or some social media applications and generalise the findings to all types of social media (Zourou, 2012).

It is also interesting to note that language learners have formed their own community on the social web. Zourou (2012) distinguished three types: (1) structured language learning communities such as Babbel, where the learning process is structured and accompanied by multimodal learning materials, (2) marketplaces such as italki where language tutors offer their services online for a fee, and (3) language exchange sites such as Lingofriends where users can learn a new language from natives and teach their own mother tongue to others.

2.2.4.8 *Speaking a second language*

While the concept of noticing and its relation to L2 acquisition has been a popular topic of debate in the field of SLA (see supra section 2.1.2.3), scholars have recently started to turn their attention to the role output has in noticing. Some researchers maintain that oral and written language production make language learners aware of their linguistic limitations, which, in turn, may incite them to pay closer attention to subsequent L2 input in order to find a way to bridge that knowledge gap (Uggen, 2012).

Gass et al. (2013) argue that output constitutes an inherent part of second language proficiency. They mention four benefits that result from written or oral language production; Firstly, production provides language learners with implicit or explicit feedback, which constitutes a crucial step in improving their language skills. Secondly, it stimulates learners to analyse the language, which consequently leads to a more profound language knowledge. In addition, frequently engaging in language output helps to develop automaticity in language production. This means that output can help language learners to go from, for instance, having to actively think about what tense to use to employing the correct tense automatically. Lastly, Gass et al. (2013) state that production forces learners to shift from a rather meaning-based processing to a more syntactic-based use of the L2.

Uggen's (2012) research demonstrated the beneficial effects of L2 output. Based on the data of 30 ESL students at a US university, she found that English production prompted the participants to pay more attention to relevant vocabulary in the subsequent input and made them aware of their limited knowledge of grammar structures.

2.2.5 Individual variables influencing second language vocabulary acquisition

Within SLA literature, a plethora of individual factors that can influence L2 acquisition have been examined and discussed, such as age, aptitude, motivation, personality, socioeconomic status, language anxiety, and learning strategies (Gass et al., 2013; Herschensohn & Young-Scholten, 2013).

In this subsection, only three factors that are most relevant to this master's thesis will be considered, namely cognates, language attitude, and gender.

2.2.5.1 Cognates

Within SLA research, cognates have been a well-researched topic (Potapova, Blumenfeld, & Pruitt-Lord, 2016). Conventionally, words in different languages are considered to be cognates when they are formally (phonologically or orthographically), semantically, and etymologically related. However, this definition is not as strictly applied within the field of SLA, where words are usually identified as cognates when they are formally and semantically related (Peters & Webb, 2018). A clear example of cognates is the Dutch word 'envelop' and its English translation 'envelope'.

Previous research has attested to 'the cognate advantage', that is the facilitative effect of cross-linguistic similarities on vocabulary acquisition (Gass et al., 2013; Lindgren & Muñoz, 2013; Peters & Webb, 2018; Potapova et al., 2016; Vidal, 2011). Indeed, cognates are more easily acquired than non-cognates (Peters & Webb, 2018).

However, the impact of this cognate advantage may be influenced by other factors. Vidal (2011) and Lingren & Muñoz (2013), for instance, found that the facilitative effect of cognates was greater in aural input than in written input. Furthermore, age also appears to play a role (Potapova et al., 2016). Kelley & Kohnert (2012), for instance, found that age was a significant predictor of variance in cognate performance on the PPVT-III (Peabody Picture Vocabulary Test Third Edition), suggesting that the cognate advantage may develop over time and therefore might be stronger in adults than in children (Potapova et al., 2016).

While it might appear simple to distinguish between cognates and non-cognates, the considerably different operational criteria that are used across studies to identify cognates suggest the converse (Potapova et al., 2016). There are objective and subjective approaches to cognate identification. An example of an objective method is the Crosslinguistic Overlap Scale for Phonology (COSP) which measures the degree of overlap in word-initial sounds, syllables,

consonants, and vowels. While such methods constitute efficient and consistent ways to assign cognate status, they do not take into account how salient the cross-linguistic overlap is to speakers. This can be solved by using a subjective approach, such as asking monolingual English speakers to guess the meaning of foreign words. High success rates in translation would then indicate that the cross-linguistic similarities are salient. However, the drawback to subjective methods is that they are rather time-consuming and less stable, considering that they are influenced by personal opinions (Potapova et al., 2016).

It is important to note that different approaches to assign cognate status can lead to different findings of cognate effects. Indeed, Potapova et al. (2016) compared four different cognate identification methods and found that objective, subjective, and hybrid (a mix of objective and subjective criteria) approaches identify different items as cognates. Consequently, the observed impact of cognates differed across the different methods (Potapova et al., 2016).

Given the limited scope for this research, an objective method will be used to identify cognates in the English and French vocabulary tests. Cross-linguistic similarities between the target words and their Dutch translations will be measured by means of the normalised Levenshtein distance for word length, which assesses the orthographic similarities between target words and their translations (Schepens, Dijkstra, & Grootjen, 2012).

2.2.5.2 *Language attitudes*

Language attitudes are both cognitive and affective and constitute a part of language learning motivation (Brown, 2007; Elyildirim & Ashton, 2006; Herschensohn & Young-Scholten, 2013). They are evaluative reactions based on personal beliefs and opinions and they govern the manner in which learning is approached (Elyildirim & Ashton, 2006; Gardner, 1985; Herschensohn & Young-Scholten, 2013). Furthermore, attitudes develop and change with age and are influenced by a variety of factors, such as parents, peers, and interactions with people from different social or cultural backgrounds (Brown, 2007; Elyildirim & Ashton, 2006).

Numerous research has demonstrated the influence of attitude on language learning, including vocabulary acquisition (Gass et al., 2013; Herschensohn & Young-Scholten, 2013; Tseng & Schmitt, 2008). Negative attitudes towards the L2 or towards native speakers of the L2 were found to impede the L2 learning process. By contrast, positive attitudes were found to enhance language learning success. This may create a vicious circle where language learners with a positive attitude become progressively more positive because they experience success, whereas language learners with a negative attitude may gradually become more negative because they fail to progress (Elyildirim & Ashton, 2006).

2.2.5.3 *Gender*

A considerable amount of literature has been devoted to the impact of gender on various aspects of second language acquisition. Various studies have suggested a female advantage in language learning, which may disappear with age (Fontecha, 2010, 2014; Llach & Gallego, 2012; Wallentin, 2009).

However, the findings on the potential relation between gender and language learning are not unequivocal. Indeed, there are studies that did not observe any significant differences in the receptive vocabulary sizes of boys and girls. Llach & Galego (2012), for instance, conducted a longitudinal study on the receptive vocabulary knowledge of 176 young EFL students from Spain and found no significant differences in the receptive vocabulary size of male and female learners.

In addition, other findings appear to suggest a male rather than a female advantage in language learning. Lynn, Fergusson & Horwood (2005), for instance, examined 897 children aged 8 to 9 from New Zealand and found that boys scored significantly higher than girls on vocabulary tasks. In addition, Kuppens (2007) found that the English receptive vocabulary knowledge of 11 to 12-year-old Flemish boys was significantly greater than that of their female peers.

2.3 English and French in Flanders

2.3.1 A historical context of trilingual Belgium: België, la Belgique or das Belgien?

Language has always been an important topic of debate in Belgium. The territory that now constitutes the Kingdom of Belgium has known a long history of Germanic and Latin influences. This resulted in a Dutch-speaking and a French-speaking area, known as Flanders and Wallonia respectively. Consequently, when Belgium claimed its independence from the Kingdom of the Netherlands in 1830, the new-born state was characterised by bilingualism (belgium.be, 2013; Kris Deschouwer, 2012). However, this bilingual reality was ignored for a long time; French became de facto the official language of the new nation, even though the Belgian Constitution of 1831 (written in French) stipulated freedom of languages to safeguard the Kingdom of Belgium against language compulsion, which had been exercised under previous regimes (Vande Lanotte & Goedertier, 2010). The superiority of French in Belgium created inequality between the Francophones and the demographic majority of Dutch speakers since the latter were unable to communicate efficiently with the government nor with any of its institutions (Vande Lanotte & Goedertier, 2010). This led to the so-called language struggle, which became emblematic of Flanders' fight for more democracy and enfranchisement (Blommaert, 2011).

Flemish nationalists initially strove for an officially bilingual Belgian state but their objective would change drastically after World War I (Blommaert, 2011; Vande Lanotte & Goedertier, 2010). Before the outbreak of the War in 1914, Flemings merely wanted Dutch to be on equal footing with French. However, the Francophile political elite considered the official recognition of two languages within the Kingdom of Belgium to be a threat for the State. To appease Flemish nationalists, a number of language laws were adopted. These laws gave certain language rights to the Dutch speakers in Flanders but had only a limited impact on the social status of Flemings within Belgian society. The gap between the Flemings and the Walloons became dramatically noticeable during World War I as numerous Flemish soldiers died because they did not understand the orders of their Francophone officers (Vande Lanotte &

Goedertier, 2010). This led Flemish nationalists to abandon their initial objective to create a bilingual Belgium where citizens could choose to speak Dutch or French, and endeavour after a monolingual Flanders (Blommaert, 2011).

This shift in nationalism led to the post-war introduction of territoriality. The principle of territoriality means that the official language depends on the area in which one is located. For instance, official communication in the Dutch linguistic area needs to be in Dutch. This principle was introduced by law for the first time in 1921. To determine where the Dutch linguistic area stopped and the French one began, a language census was held every ten years. However, Flemings boycotted the 1960 language census because they were afraid to lose territory to the French linguistic area. Therefore, the then government Lefèvre-Spaak decided to implement by law a fixed language frontier in 1962. In the eyes of Flemish nationalists, this would help prevent further Frenchification of Flanders. A year later, in 1963, another law delineated Belgium's four linguistic territories: the Dutch, the French, the bilingual (French-Dutch) Brussels-Capital, and the German linguistic territory. The latter comprises land that Belgium annexed following Germany's defeat in World War I (Vande Lanotte & Goedertier, 2010).

The aforementioned laws of 1962 and 1963 heralded six state reforms between 1970 and 2011 which transformed Belgium from a unitary state into a federal one (Kris Deschouwer, 2012). The freezing of the language frontier and the delineation of the four linguistic territories was deemed to be insufficient to resolve the issues among Belgian citizens since the differences between Flanders and Wallonia were not solely of a linguistic nature. Indeed, the two communities also differed in terms of religion, politics, and economics. This eventually led to the formation of a federal state encompassing three Communities (the Flemish, the French, and the German-speaking Community) and three Regions (the Flemish, the French, and the Brussels-Capital Region) with far-reaching autonomy (Blommaert, 2011).

2.3.2 French in Flanders

The long and turbulent history of French in Flanders (see supra 2.3.1) has created a rather hostile environment for the language within Flemish society. Many Flemings still perceive French as a language that was and/or is socially superior. Therefore, speaking French in Flanders is considered to be a sign of ostentation and disdain for Dutch. Consequently, it is not surprising that the principle of territoriality and the many ensuing language laws continue to be vigorously implemented, resulting in a strained relationship between the Flemings and the Walloons, and a country that is characterised by monolingualism rather than bi-or trilingualism, with the exception of Brussels (Blommaert, 2011; Dewaele, 2005).

Previous research has attested to this negative attitude towards French. Van Hoecke (2017), for instance, found that only 39% of Flemish pupils aged 11 to 12 considered French to be a fun language. This was in stark contrast with the 87% who indicated liking English. Similarly, Dewaele (2005) found that out of 100 Flemish students in their last year of secondary school, a mere 43 responded that they liked learning French versus 77 who enjoyed learning English.

However, despite the general distaste for French in Flanders, it still constitutes an important part of Flemish education. Indeed, the Flemish Decree on primary school education⁴ states that French is an obligatory part of education in the Flemish Community, starting from the fifth year of primary school. This has been the case ever since 2004 (eindtermen.vlaanderen.be, 2017). Nevertheless, it should be noted that schools within this Community are allowed to offer initiation lessons in French from the third form onwards⁵.

⁴ Art. 43, §1, chapter 5 of the Flemish Decree on primary school education of 16 June 2017, *Belgisch Staatsblad* 18 August 2017. Retrieved from:

<https://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=12254#135338>.

⁵ Art. 43, §2, chapter 5 of the Flemish Decree on primary school education of 16 June 2017, *Belgisch Staatsblad* 18 August 2017. Retrieved from: <https://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=12254#135338>.

2.3.3 English in Flanders

While Flanders is rather inimical to influences of languages other than Dutch, such as French and the many minority languages present in Flemish society, it appears to make an exception for English. Indeed, English is omnipresent in the Flemish linguistic landscape; A profusion of TV programmes and films are in English, an increasing number of commercials use English catchphrases, the majority of the songs on the radio are in English, Flemish universities are permitted to offer a part of their courses in English, academics are incited to report on their research in English, for many prestigious jobs English proficiency is required, and a leading business executive is no longer referred to as a “PDG” (Président Directeur Général) but is now called a “CEO” (Chief Executive Officer) (Blommaert, 2011).

Exposure to English has increased to such an extent that English, a non-official language in Belgium, appears to have become the second language (in a technical sense) of many Belgian citizens. French in Flanders and Dutch in Wallonia have largely been replaced by English, which has become the lingua franca of Europe. This phenomenon can be attributed to the fact that many Belgians, and Europeans in general, regard English proficiency as a token of personal success and social mobility (Blommaert, 2011). Therefore, the attitude towards this language is largely positive, as has been established in previous studies (De Wilde & Eyckmans, 2017; Dewaele, 2005; Van Hoecke, 2017).

This popularity and the great public visibility of English in Flanders creates a favourable environment for incidental language learning. Indeed, previous studies have found that Flemish pupils have varying degrees of English competence prior to formal English instruction (see *infra* 2.4) (Blommaert, 2011; Kuppens, 2007; Van Hoecke, 2017). Nevertheless, research on the development of such knowledge remains scarce (De Wilde & Eyckmans, 2017).

It should also be noted that while English is more prominent in Flemish society than French, the latter is still the first foreign language that is formally instructed to pupils (see *supra*

2.3.2). In fact, English does not become mandatory until the second year of secondary school⁶ - when pupils are generally between 13 and 14 years old - although Flemish schools are allowed to start English instruction in the first year of secondary school as well⁷. Nonetheless, this is rather late compared to many other European countries such as Denmark where English is already taught in the first year of primary school (Jensen, 2016).

2.4 Previous research on incidental English acquisition in Flanders

These past few years, a number of studies have been conducted on the false beginner status in English of Flemish pupils. Kuppens (2007), for instance, examined the relation between three types of English media exposure and the English vocabulary knowledge of 374 Flemish pupils in their last year of primary school. She found that pupils who watch subtitled English TV programmes and films daily have a more extensive productive vocabulary knowledge. While listening to English music and playing English computer games did not have an effect on the number of correct words produced by the participants, it did have a positive impact on the complexity of those words. Although it should be noted that this positive influence of English gaming only appeared to affect boys. Furthermore, boys obtained significantly higher scores on the vocabulary test than girls.

De Wilde & Eyckmans (2017) conducted similar research. They investigated the incidental English acquisition of 30 Flemish children in their last year of primary school by means of a receptive vocabulary test (PPVT-IV) and a proficiency test that assessed their listening, speaking, reading, and writing skills. They found that gaming in English and English computer use had a significant impact on the children's proficiency. The results also attested to a large discrepancy in English competence among the participants; Some pupils had already

⁶ Art. 154, §2, chapter 4 of the Flemish Decree on secondary school education of 17 December 2010, *Belgisch Staatsblad* 24 June 2011. Retrieved from:

<http://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=14289#301960>

⁷ Art. 153, §3, chapter 4 of the Flemish Decree on secondary school education of 17 December 2010, *Belgisch Staatsblad* 24 June 2011. Retrieved from:

<http://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=14289#301960>

reached a degree of proficiency that corresponds with the level expected from Flemish students at the end of their second year of secondary school, while other pupils hardly knew any English yet. Many pupils also expressed a strong liking for the English language, so much so that some of them even prefer using English over Dutch when talking to their peers.

De Jans (2013) investigated the English productive vocabulary knowledge prior to instruction of 118 Flemish pupils in their first year of secondary school. He found that on average, the pupils were able to produce about half of the English target words correctly. In accordance with De Wilde & Eyckmans (2017), De Jans (2013) also found that the participants who game and surf on the internet in English regularly performed better in English. Additionally, watching English TV and films, both with and without subtitles, was also found to have a positive influence on the pupils' vocabulary production.

While De Jans (2013) examined English vocabulary production, Willems (2015) focussed on the English receptive vocabulary knowledge of 110 Flemish pupils in their first year of secondary school. Her findings indicate that the boys outperformed the girls, and that reading English books and magazines, watching subtitled English TV and films, and playing English videogames all positively affected the participants' scores on the PPVT-III.

Lastly, Van Hoecke (2017) examined the English receptive vocabulary size of 38 Flemish pupils and compared it with their French receptive vocabulary size. She found that the participants had a significantly greater vocabulary knowledge in English than in French. In addition, her findings indicate that English exposure exceeded French exposure, and that the participants seemed to prefer English over French. Furthermore, she found that the pupils who regularly listened to English music performed better on the English PPVT-IV than those who did so less frequently or never, and that pupils who had a positive attitude towards French performed better on the EVIP test.

3 RESEARCH

3.1 Situating the research: aims, research questions, and hypotheses

This master's thesis is situated in the field of Second Language Vocabulary Acquisition and contributes to the work of the cluster 'Language Learning' of the Research Centre for Multilingual Practices and Language Learning in Society (MULTIPLES-LL) of Ghent University.

The aim of this empirical research is twofold; The first aim is to investigate whether the English receptive vocabulary size of Flemish pupils in their last year of primary school exceeds their French receptive vocabulary size, an official language in Belgium that is formally instructed relatively early on. The second aim is to determine which individual variables affect their receptive lexicon in the respective languages (i.e. exposure, gender, attitude, opportunities to speak the L2, cognateness).

In order to meet the aforementioned objectives, this research seeks to formulate an answer to the following three research questions:

1. Do Flemish pupils in their last year of primary school have a greater receptive vocabulary size in English than in French, and if so, can that be attributed to the lexical relationship between English and Dutch?
2. Are Flemish pupils in their last year of primary school exposed to English more frequently than to French?
3. What is the relation between the different individual variables surveyed in the questionnaire and the English and French receptive vocabulary knowledge of Flemish pupils in their last year of primary school?

This study will start from the following two hypotheses: the English receptive vocabulary size of the children will exceed their French receptive vocabulary size, and their extracurricular exposure to English will be greater than their extracurricular exposure to

French. One would expect that the participants would recognise more French than English words, considering that they are already receiving French lessons. However, previous studies have indicated that many Flemish children already have a considerable English vocabulary size (see supra 2.4). Moreover, Van Hoecke (2017) found that Flemish pupils aged 11 to 12 performed better on the English PPVT-IV than on the French EVIP (Échelle de Vocabulaire en Images Peabody). She also found that the pupils were more exposed to English than to French.

3.2 Methodology

3.2.1 Participants

In this study, the data of 71 Flemish pupils was used to provide an answer to the three research questions. In total, there were 33 boys and 38 girls, all of whom were in their last year of primary school and were 10 to 12 years old. Taking into account that the data was gathered in October, this implies that they had already attended three fifty-minute French classes per week for 12 months but had not yet received any formal English instruction during their school career.

The majority of the participants had Dutch-speaking parents, although four of them came from a multilingual background, more specifically, a German-Dutch, Dutch-Romanian, Kosovar, and Serbian background. The data of children who had native French- or English-speaking parents were excluded to avoid any distortion of the results. In total, four children indicated having at least one parent who was a native French or English speaker.

The pupils made up four classes at three different primary schools in West-Flanders. However, it was not possible to collect data from all the pupils in those classes: the parents of one pupil declined their child's participation in the study, two other pupils were not present for the French data collection, and another one had just moved to Belgium from Peru. The latter did not understand much Dutch and had never had any French instruction before. Consequently, these pupils were not included in the data collection of this study.

3.2.2 Instruments

3.2.2.1 *Questionnaire*

Data on the exposure to English and French was gathered by means of a pre-existing questionnaire (see Appendix Questionnaires 1 and 2). This questionnaire was developed with the help of teachers' and policy makers' input by De Wilde & Eyckmans (2017), and was later revised and used in Van Hoecke's (2017) and De Wilde, De Meyer & O'Neill's (2017) research. Two versions of the same questionnaire were used; One inquired about English exposure, the other about French exposure. All the questions were formulated in Dutch as to prevent any misunderstandings.

In the questionnaire, the participants provided information on eight continuous independent variables, and five nominal independent variables. The former inquired about the average amount of time per day that the pupils engaged in the following language-input activities: (1) watching television in English/French without subtitles, (2) watching television in English/French with English/French subtitles, (3) watching television in English/French with subtitles in the mother tongue, (4) listening to English/French music, (5) reading in English/French, (6) gaming in English/French, (7) using YouTube/social media in English/French, and (8) speaking English/French. The participants were required to check a box indicating the amount of time they engaged in each of these activities on an average day, ranging from never to over two hours a day.

The nominal variables were the following: (1) contact with English/French native speakers, (2) speaking English/French yourself sometimes⁸, (3) attitude towards

⁸The nominal variable 'speaking English/French yourself sometimes' differs from the continuous variable 'speaking English/French' in that it does not examine the average amount of time pupils engage in English/French speaking, but rather looks to investigate the circumstances in which pupils speak the respective languages.

English/French, (4) looking for English/French speaking opportunities, and (5) gender. These questions were answered with either yes/no, or male/female. For variables (1), (2), and (4), the participants had the possibility to include when, where, with whom, and why they engaged in those activities.

However, four variables have been excluded from this study due to a misinterpretation of the corresponding questions. These variables are: (1) speaking French, (2) speaking French yourself sometimes, (3) contact with native French speakers, and (4) contact with native English speakers. While variables (1) and (2) enquire about the participants' extracurricular exposure to French, many pupils also included the amount of time they speak French in class. Furthermore, variables (3) and (4) were supposed to be limited to contact with native speakers. However, this was not explicitly formulated in the corresponding questions on the questionnaire. Therefore, these questions were misinterpreted by both the researcher and, consequently, the participants.

3.2.2.2 *Peabody Picture Vocabulary Test*

The receptive vocabulary knowledge of English was measured by means of the Peabody Picture Vocabulary Test Fourth Edition (PPVT-IV) Form A. The aim of the test is to recognise and link spoken forms of individual words to the correct image. This standardised instrument was designed by Dunn & Dunn (2007) as a way to assess the receptive vocabulary performance in Standard American English of individuals who are at least 2 years and 6 months old. Each age category has to identify a different number of words. These words represent vocabulary items a native speaker should be able to identify at that particular age. For the participants in this study, who were all between the ages of 10 and 12, this meant that they had to identify 120 American English words (Community-University Partnership for the Study of Children, Youth, and Families, 2011).

The receptive vocabulary knowledge of French was measured by means of the Échelle de Vocabulaire en Images Peabody (EVIP) form B. The EVIP is the French equivalent of the English Peabody Picture Vocabulary Test. This version was created by Dunn, Thériault-

Whalen, & Dunn (1993) and operates the same way as the English PPVT-IV. The only differences are that the EVIP is only available for individuals aged 2 years and 6 months to 18 years old, and that the participants were required to identify 104 words instead of 120 (Pearson, s.d.). It should be noted that the EVIP was designed based on the vocabulary knowledge of Canadian French speakers (Monetta, 2014). This implies that non-Canadian native French speakers might not be familiar with some of the words that are included in the test. For instance, the target word “chaudière” refers to a boiler in Wallonia and France, whereas this word is synonymous with “bucket” in Canada.

Both the PPVT-IV and the EVIP consist of a form A and a form B. These forms are very similar in terms of content and design, but they offer the possibility to use the Peabody tests in longitudinal research or for language progression monitoring (Community-University Partnership for the Study of Children, Youth, and Families, 2011; Van Hoecke, 2017).

The items of the PPVT-IV and the EVIP were both presented by means of a PowerPoint presentation. Each slide contained four images and a recording of the word that needed to be recognised. For instance, the first slide of the PPVT-IV test contained an image of a rose, a pumpkin, a ball, and a parrot. The recorded word was “ball” (see Figures 1 and 2). The participants then had to be able to link that word to the correct image. The PowerPoint of the PPVT-IV and the EVIP also contained two example slides, slides A and B, with recordings of Dutch words. These slides were used to demonstrate the procedure for both tests (see *infra* 3.2.3.1).

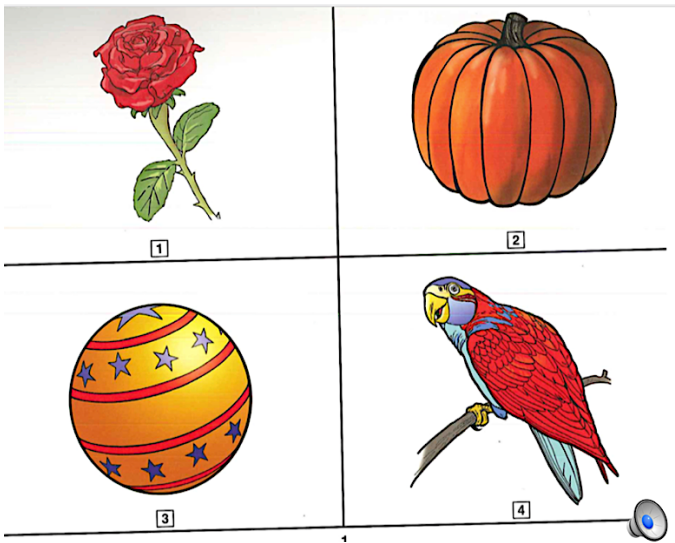


Figure 1: Slide 1 of the PPVT-IV test.

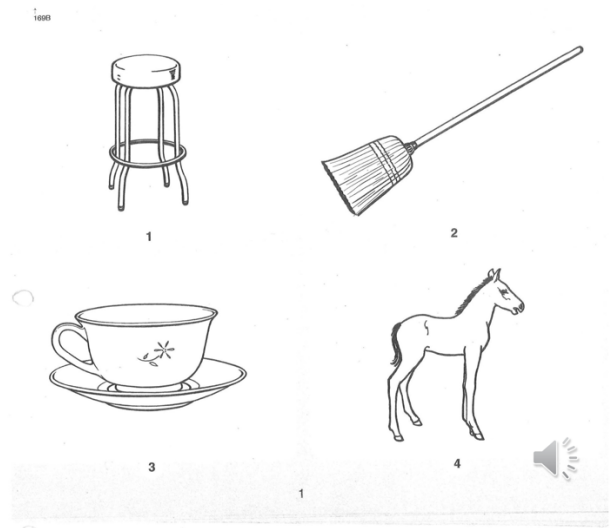


Figure 2: Slide 1 of the EVIP test.

The test-retest, internal consistency, and alternate-form reliabilities of the PPVT-IV were found to be high. This means that the test scores of the PPVT-IV are considered to be reliable across all age groups and regardless of the form (A or B) that is employed. Similar observations were made for the EVIP (Bouchard, Fitzpatrick, & Olds, 2009; Community-University Partnership for the Study of Children, Youth, and Families, 2011).

While the PPVT-IV and the EVIP are designed to measure the receptive vocabulary size of native speakers, they are also commonly used to measure the receptive vocabulary knowledge of non-native speakers (Bouchard et al., 2009; Community-University Partnership for the Study of Children, Youth, and Families, 2011; De Jans, 2013; De Wilde & Eyckmans, 2017; Merlaen, 2013; Van Hoecke, 2017; Willems, 2015). This is because it is difficult to design a standardised vocabulary test that represents the words that language learners should know at a certain age, considering that people start learning non-native languages at varying stages in their lives.

3.2.3 Procedure and setting

3.2.3.1 *Data collection*

After having found four teachers who were willing to let their pupils participate in the data collection, a consent form was drawn up (see Appendix Consent form 1). This consent form notified the pupils' parents of the purpose of the study and the type of data that would be collected. It also provided them with the opportunity to decline their child's participation in the study by filling out the strip at the bottom of the letter and having their child hand that to their teacher.

The data from the four participating classes was all gathered in October, with always at least one day between each data collection. This was done to avoid test fatigue and/or demotivation. Furthermore, the collection of the English data always preceded the collection of the French data. The goal was to generate enthusiasm and motivation by starting off with the presumably most enjoyable part of the data collection process, since previous research has found that English is generally more popular than French among Flemish pupils (Van Hoecke, 2017).

In total, the French and English data collection for each of the four classes took circa two hours. For each data collection, the participants were required to complete a questionnaire inquiring about their exposure to either English or French, and to take the PPVT-IV or EVIP test. Twenty minutes were allocated to complete the questionnaire, and 30 minutes were allocated to take the PPVT-IV or EVIP test, amounting to two times 50 minutes for each class, not including the time spent on explaining the purpose of and the procedure for this study. This timing was found to be sufficient for pupils of the sixth form based on previous research conducted by Van Hoecke (2017).

Prior to the pupils completing the questionnaire and the PPVT-IV or EVIP test, a couple of things were discussed; Firstly, the researcher shortly notified the students that she was conducting a study on the English and French vocabulary knowledge of Flemish pupils in their

last year of primary school. Secondly, the participants were told that they would be instructed to fill out a questionnaire (either on English or French exposure) and take an English or French vocabulary test. Subsequently, the pupils were asked to put a binder between them and their neighbour to avoid cheating. Furthermore, the participants were told that they would receive a treat at the end of both the English and the French data collection if they managed to stay focussed and work in complete silence. This helped to motivate the pupils and prevented them from saying their answers out loud. It should be noted that all communication took place in Dutch to prevent any misunderstandings.

For both the English and the French data collection, the participants were instructed to start off by completing the questionnaire. All of the questions were first read to them out loud by the researcher. Examples were provided where needed. Afterwards, the participants had the chance to ask any remaining questions before filling in the questionnaire. While completing the questionnaire, the pupils still had the opportunity to ask questions by raising their hand.

After the questionnaires had been completed, the researcher explained the procedure for taking the PPVT-IV or EVIP test. The pupils were told to first have a look at the answer sheet that comprised either 120 or 104 items depending on the language they were tested on that day (see Appendix Answer sheets 1 and 2). Each row contained the numbers one to four. By projecting example slides A and B of the PowerPoint presentations onto an interactive whiteboard, the researcher explained that per slide they would hear a word (in English for the PPVT-IV and in French for the EVIP) that would correspond to one of the four numbered images on each slide. They were told to circle on their answer sheet the number of the illustration displaying the meaning of each word. In addition, the researcher emphasized that the first number of each row on their answer sheet represented the number of the PowerPoint slides and that this allowed them to verify whether their answers corresponded with the correct slide. In order to prevent the participants from mistakenly circling slide numbers, they were encouraged to draw a line between those numbers and the numbers of the images (see Figures 3 and 4).

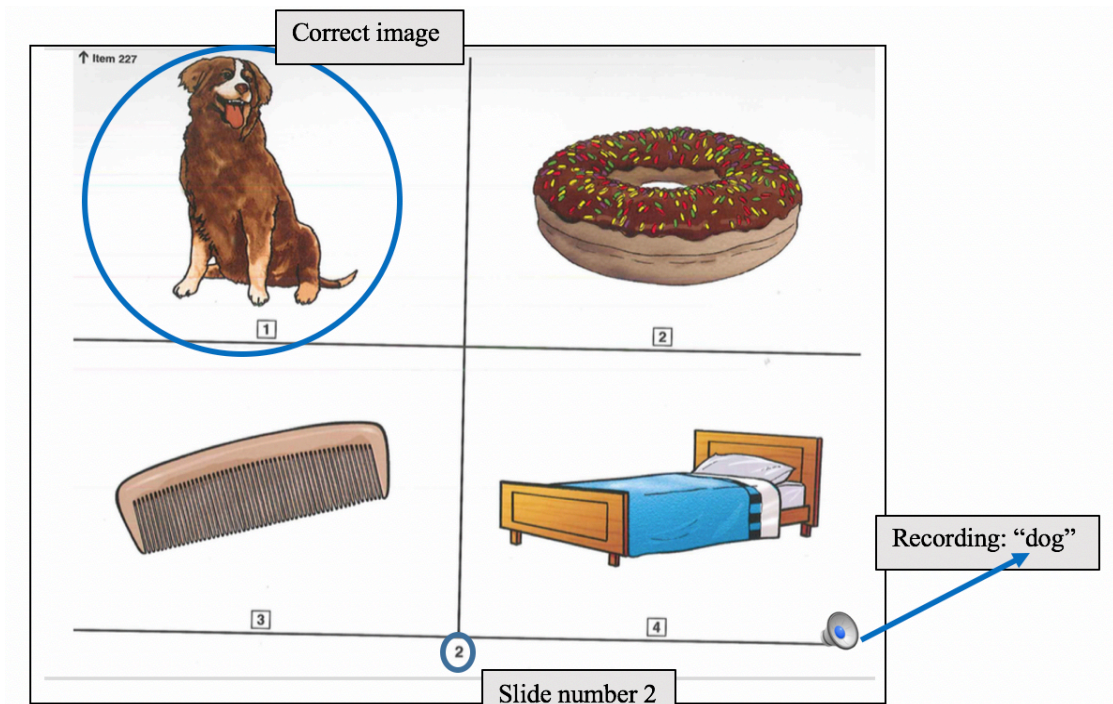


Figure 3: Procedure for the PPVT-IV PowerPoint presentation.

Line drawn by pupils between slide numbers and image numbers

Antwoordblad woordenschattoets EN

1.	1	2	3	4
2.	1	2	3	4
3.	1	2	3	4
4.	1	2	3	4

"dog" = image 1

Figure 4: Procedure for the PPVT-IV answer sheet.

The participants were told that if they did not recognise certain words, they could either skip them or make an educated guess. They were encouraged to cross out the entire row any time they decided to skip an item in order to prevent them from indicating their next response in the row of the previous item. While educated guesses were allowed so that pupils who are less confident in their abilities would not be deterred from answering, the researcher underlined that wild guesses were forbidden.

Following these instructions, the participants had circa 30 minutes to complete the PPVT-IV or EVIP test. This implies that the researcher waited 15 seconds before going to the next slide of the PPVT-IV or EVIP test. However, the pupils were told that if they had not heard a word well, they could raise their hand and the researcher would play the recording once more. This was at times necessary due to background noises (e.g. someone sneezing) and/or the quality of the sound system present in the classroom. Consequently, more than 15 seconds were required for some of the slides.

It should also be noted that despite the instructions given beforehand, some pupils still appeared to experience some difficulty with filling in the answer sheet to the PPVT-IV. This was caused by pupils forgetting to cross the entire row whenever they skipped an item, resulting in responses that did not correspond to the appropriate slide number. Fortunately, the participants who encountered this problem noticed it early on and notified the researcher immediately. She then advised them to manually change the printed slide numbers to the slide numbers that corresponded with their responses. For instance, if they skipped the item on slide 19, and responded to the item on slide 20 in the row that was reserved for the answer to slide 19, they were told to cross out the number 19 and write a 20 in front of it. This issue did not occur during the EVIP test, as the participants were accustomed to the procedure by then.

Another thing that should be noted is that for one French data collection, the recordings on the EVIP PowerPoint presentation could not be used due to some technical difficulties with the sound system in the classroom. Consequently, the researcher read the target words out loud.

3.2.3.2 *Data processing*

The answers to the PPVT-IV and the EVIP were manually corrected, which resulted in scores on 120 for the English test and on 104 for the French test. In order to normalise the results, the scores were converted to scores on 100. Subsequently, a paired-samples t-test was conducted to compare the mean score on the French receptive vocabulary test with the mean score on the English receptive vocabulary test.

Subsequently, the cognates of both the PPVT-IV and the EVIP test were identified by means of the normalised Levenshtein distance for word length as proposed by Schepens et al. (2012). First, the orthographic distance between the target words and their Dutch translations were calculated using the Levenshtein distance formula, meaning that the minimal number of insertions, deletions, and substitutions necessary to edit the target words into their Dutch translations were counted (Levenshtein, 1966; Schepens et al., 2012). This calculation resulted in natural numbers portraying the orthographic distance between each English or French target word and its translation. These numbers were then used to calculate the normalised orthographic distance by means of the following formula: $\text{score} = 1 - (\text{distance}/\text{length})$, with ‘distance’ being the previously calculated Levenshtein distance and ‘length’ being the sum of the letters of the longest word, be it the target word or its translation. This formula results in a number between 0 and 1, 0 indicating that the target word and its translation do not show any similarities, and 1 indicating that the target word and its translation are complete cognates. Words that were equal to or higher than 0.5 were identified as cognates (see Appendix Tables 1 and 2 for an overview of the identified cognates).

For instance, the English word ‘envelope’ and its Dutch translation ‘envelop’ had a normalised orthographic distance of 0.88 and were therefore identified as cognates. Indeed, to go from ‘envelope’ to ‘envelop’, the letter e needs to be deleted from the English word. This sets the Levenshtein distance at 1. Considering that the English word is the longest and contains 8 letters, the calculation of the normalised orthographic distance was $1 - (1/8)$, which equals 0.88.

Subsequently, the identified cognates were eliminated from the vocabulary tests and scores were recalculated. Concretely, 55 of the 120 English items and 23 of the 104 French items were excluded. The scores without cognates were then converted again to scores on 100. Next, a paired-samples t-test was conducted to compare the mean score on the French receptive vocabulary test with the mean score on the English receptive vocabulary test, both without cognates. By doing so, any influence of the so-called ‘cognate advantage’ could be excluded from the findings (see supra 2.2.5.1).

As for the data gathered from the questionnaire, a Kruskal Wallis test was used to examine the relation between the independent variables (language input activities) and the vocabulary scores. This was done for eight English and seven French activities, namely watching programmes in English/French, watching programmes in English/French with English/French subtitles, watching programmes in English/French with subtitles in the mother tongue, listening to music in English/French, reading in English/French, gaming in English/French, using YouTube/social media in English/French, and English speaking.

The relation between the nominal independent variables and the vocabulary test scores was examined by a Mann-Whitney U test. These variables were speaking English, attitude towards English/French, looking for English/French speaking opportunities, and gender.

Lastly, a paired-samples t-test was conducted to compare the mean of exposure to French and English for each input activity. The mean of each language activity was calculated after transposing every amount of exposure indicated by the participants into a value ranging from 0 to 2, 0 meaning they do not spend any time on this activity on a daily basis, 1 meaning less than 1 hour a day, and 2 meaning more than 1 hour.

4 RESULTS

4.1 Dependent variables

4.1.1 Scores on the receptive vocabulary tests

Table 2 illustrates that the participants obtained a wide range of scores, especially for the PPVT-IV, and that they performed better on the PPVT-IV than on the EVIP test. The range of scores on the PPVT-IV and the EVIP are 64/100 and 47/100 respectively. The mean scores are 63/100 for the PPVT-IV and 38.87 for the EVIP, constituting a difference of 24.13/100.

	PPVT-IV English (on 100)	EVIP French (on 100)
Mean	63.00	38.87
Median	61.00	39.00
Mode	66.00	39.00
Standard deviation	13.30	9.45
Range	64.00	47.00
Minimum	33.00	14.00
Maximum	97.00	61.00

Table 2: Descriptive statistics for the administered PPVT-IV and EVIP test (n=71).

The outperformance on the English PPVT-IV is also demonstrated in Figures 5 and 6. These figures show that 86% of the participants knew more than half of the items on the PPVT-IV. This is in stark contrast with the mere 10% who succeeded in doing the same on the EVIP test.

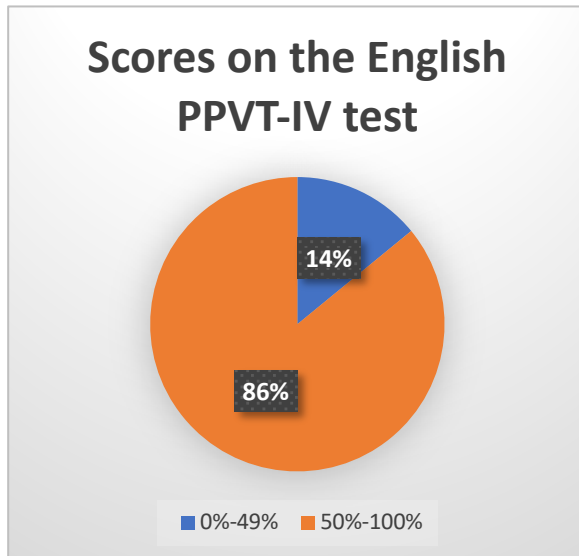


Figure 5: Percentage of participants recognising less than half, half, or more than half of the items on the PPVT-IV (n=71).

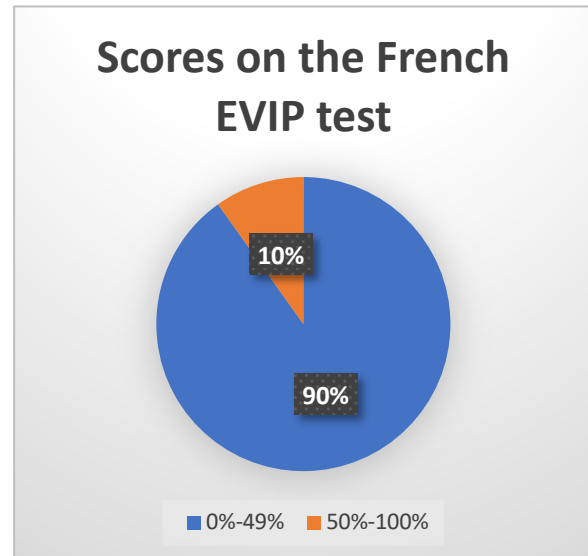


Figure 6: Percentage of participants recognising less than half, half, or more than half of the items on the EVIP (n=71).

A paired-samples t-test was conducted to compare the mean score on the French receptive vocabulary test with the mean score on the English receptive vocabulary test. Table 3 shows a significant difference ($p = .000$) in the scores for English ($M=63.00$ $SD=13.30$) and French ($M=38.87$, $SD=9.44$). The participants' English vocabulary size significantly exceeds their French vocabulary size.

Paired Samples Test									
Paired Differences									
Pair		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig.(2-tailed)
					Lower	Upper			
1	EVIPFrench-PPVTEnglish	-24,12676	11,54362	1,36998	-26,85909	-21,39443	-17,611	70	.000

Table 3: Paired-samples t-test comparing the mean score on the French receptive vocabulary test with the mean score on the English receptive vocabulary test.

4.1.2 Scores on the receptive vocabulary tests without cognates

Table 4 illustrates that the participants still performed better on the English PPVT-IV than on the French EVIP after the cognates had been eliminated. Nevertheless, the scores on the PPVT-IV without cognates did decrease considerably compared to the scores with cognates (see Table 2). The mean score dropped by 17.89 points, the median by 19 points, and the mode by 29 points. The range of scores increased by 13 points. This is because the minimum and maximum score decreased by 18 points and by 5 points respectively.

The scores on the French EVIP without cognates also decreased compared to the scores with cognates, albeit not as strongly as the English scores. The means score dropped from 38.87 to 30.94, the median from 39 to 32, and the mode from 39 to 26. The range of scores increased by 3 points, with a minimum score of 6 instead of 14 and a maximum score of 56 instead of 61.

	PPVT-IV English <u>without cognates</u> (on 100)	EVIP French <u>without cognates</u> (on 100)
Mean	45.11	30.94
Median	42.00	32.00
Mode	37.00	26.00
Standard deviation	17.15	10.47
Range	77.00	50.00
Minimum	15.00	6.00
Maximum	92.00	56.00

Table 4: Descriptive statistics for the administered PPVT-IV and EVIP test without cognates (n=71).

A paired-samples t-test was conducted to compare the mean score on the French receptive vocabulary test without cognates with the mean score on the English receptive vocabulary test without cognates. Table 5 shows a significant difference ($p = .000$) in the scores

for English (M=45.11 SD=17.15) and French (M=30.94, SD=10.47). Without cognates the participants' English vocabulary size still significantly exceeds their French vocabulary size.

Paired Samples Test									
Paired Differences									
Pair	PPVTFrenchZonder- PPVTEnglishZonder	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig.(2- tailed)
					Lower	Upper			
1		-14.16901	14,17542	1.68231	-17,52428	-10,81375	-8,422	70	.000

Table 5: Paired Samples Test English PPVT-IV without cognates versus French EVIP without cognates.

4.2 Independent variables

4.2.1 Continuous variables: exposure to English and French language-input activities

By means of two questionnaires (see Appendix Questionnaires 1 and 2), data was gathered on the average amount of time per day that the participants engage in eight language-input activities, namely (1) watching television in English/French without subtitles, (2) watching television in English/French with English/French subtitles, (3) watching television in English/French with subtitles in the mother tongue, (4) listening to English/French music, (5) reading in English/French, (6) gaming in English/French, (7) using YouTube/social media in English/French, and (8) speaking English. In the following subparagraphs, the data for each of those activities will be discussed and illustrated.

As mentioned in 3.2.2.1, the continuous variable 'speaking French' was excluded from this study due to a misinterpretation of the corresponding question on the questionnaire.

4.2.1.1 *Watching television*

Figures 7, 8, and 9 illustrate the predominance of English TV exposure. Fifty-five percent of the participants watch English TV without subtitles or captions. Watching English TV with captions appears to be less popular. Indeed, 75% of the participants never engages in this activity. Of the mere 25% who do watch English TV with captions, the majority (15%) does so for less than 30 minutes a day. Conversely, no less than 83% of the participants watch English TV with subtitles in the home language, with 17% doing so for less than 30 minutes a day, 39% for 30 minutes to an hour, 17% for 1 hour to 1 hour and 30 minutes, 4% for 1 hour and 30 minutes to 2 hours, and 6% for more than 2 hours.

These figures are in stark contrast with the figures displaying French TV exposure. Indeed, 85% of the participants never watch French TV without subtitles or captions. Of the mere 15% who do engage in this activity, 8% watches for less than 30 minutes a day, 6% for 30 minutes to 1 hour, and 1% (i.e. 1 participant) for 1 hour to 1 hour and 30 minutes. Watching French TV with captions is even less popular; No less than 93% of the pupils never engage in this activity, and the 7% who do watch for less than 30 minutes a day. In comparison, watching French TV with subtitles in the home language is more favoured among the participants. Yet, the majority (54%) still never engages in this activity. Of the 46% who do, half of them (23%) watch for less than 30 minutes a day. Only one pupil maintains to watch French TV with home language subtitles for more than 2 hours a day.

While there is a gap between English and French television exposure, a recurrent trend can be observed from Figures 7,8, and 9. That is, out of the three types of television exposure, watching television with subtitles in the home language is the most popular, followed by television without any subtitles or captions, and by television with English or French captions.

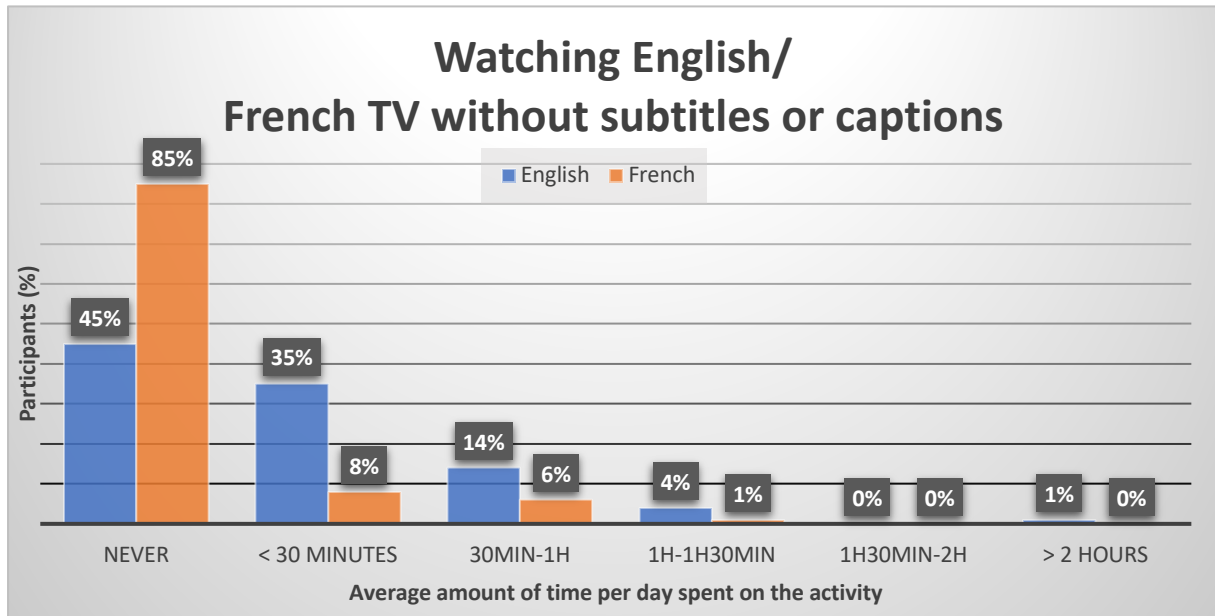


Figure 7: Average amount of time per day that the participants (%) spend watching English/French television without captions or subtitles (n=71).

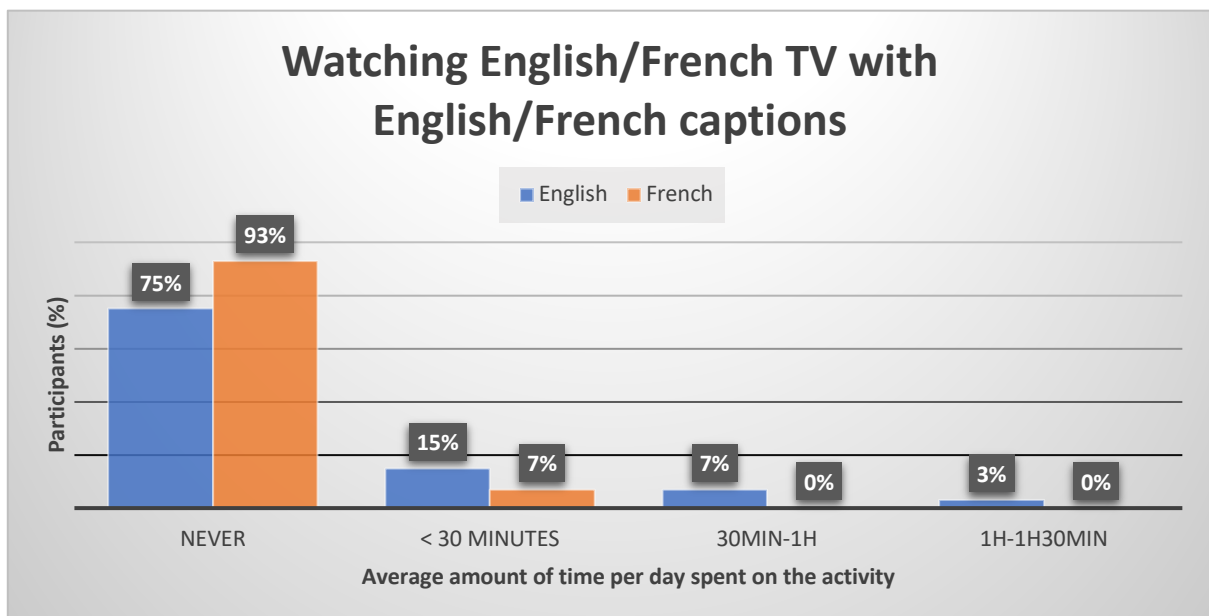


Figure 8: Average amount of time per day that the participants (%) spend watching English/French television with captions (n=71).

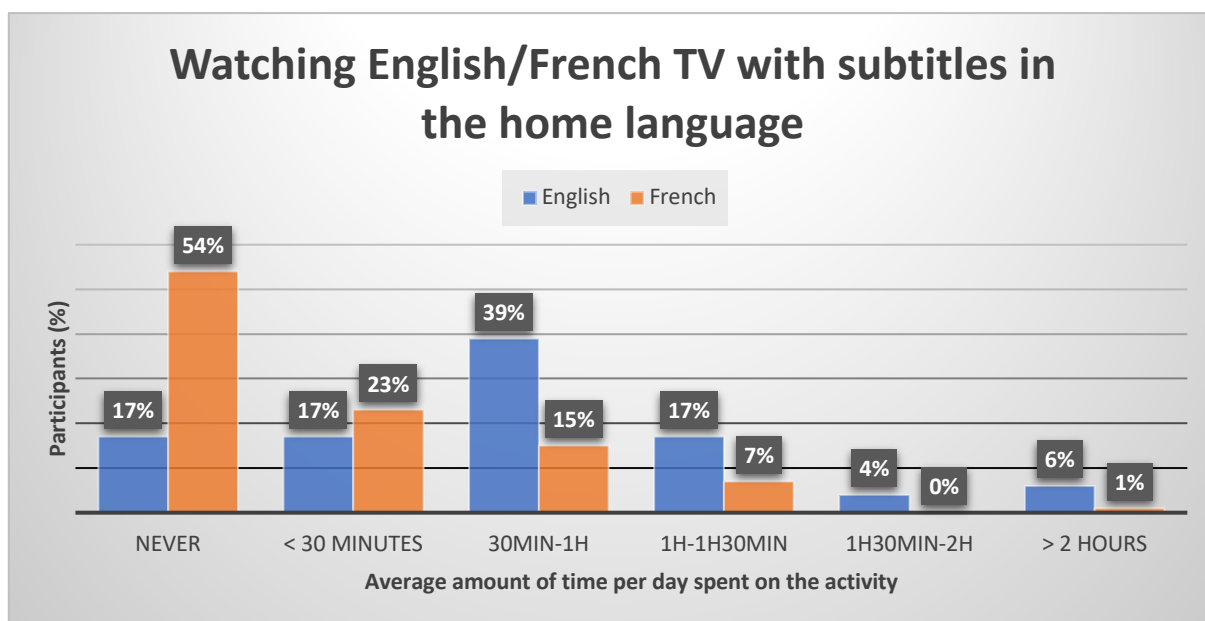


Figure 9: Average amount of time per day that the participants (%) spend watching English/French television with subtitles in the home language (n=71).

4.2.1.2 Listening to music

Another popular language-input activity among the participants is listening to English music, as Figure 10 demonstrates. Only a mere 4% indicated never listening to English songs. Of the remaining 96%, 39% of the participants listen for less than 30 minutes a day, 24% for 30 minutes to 1 hour, 17% for 1 hour to 1 hour and 30 minutes, 10% for 1 hour and 30 minutes to 2 hours, and 6% for more than 2 hours.

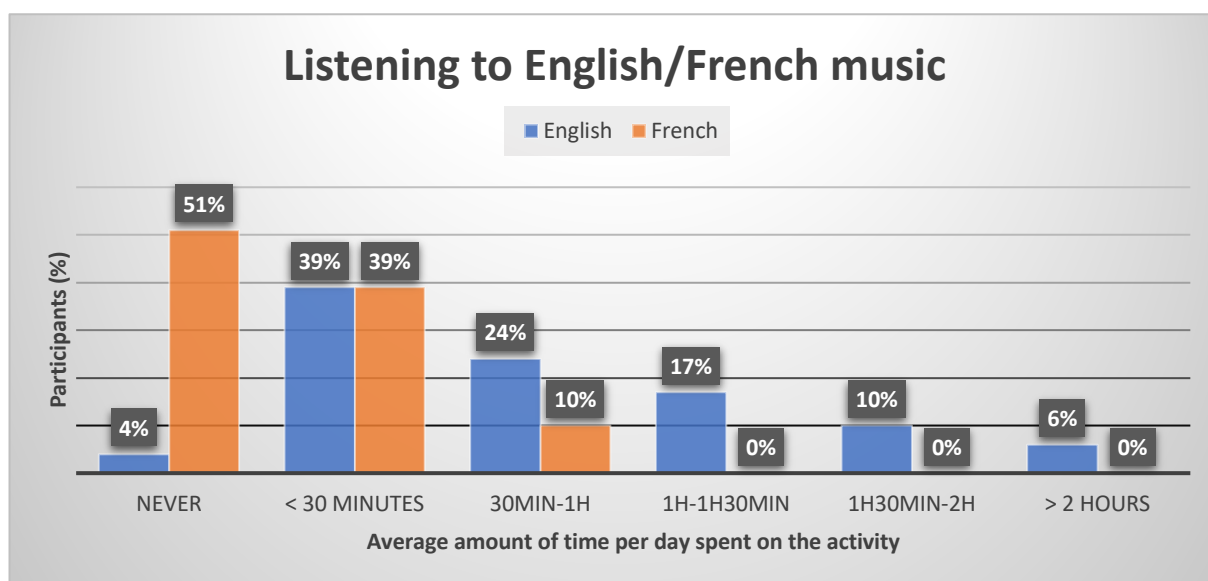


Figure 10: Average amount of time per day that the participants (%) spend listening to English/French music (n=71).

Listening to French music proved to be less attractive to the participants. More than half of the pupils (51%) stated that they never listen to French songs. Of the 49% who do listen to French music, the majority (39%) listens for less than half an hour a day and the remaining 10% for 30 minutes to 1 hour.

4.2.1.3 Reading

Figure 11 reveals that reading in both English and French is not a popular language-input activity among the participants. Merely 11% of the participants read in English, and the average amount of time per day spent on that activity does not exceed 30 minutes. Reading in French proved to be even more unpopular. Merely 8% of the participants indicated that they read in French, with only one pupil reading for more than half an hour per day on average.

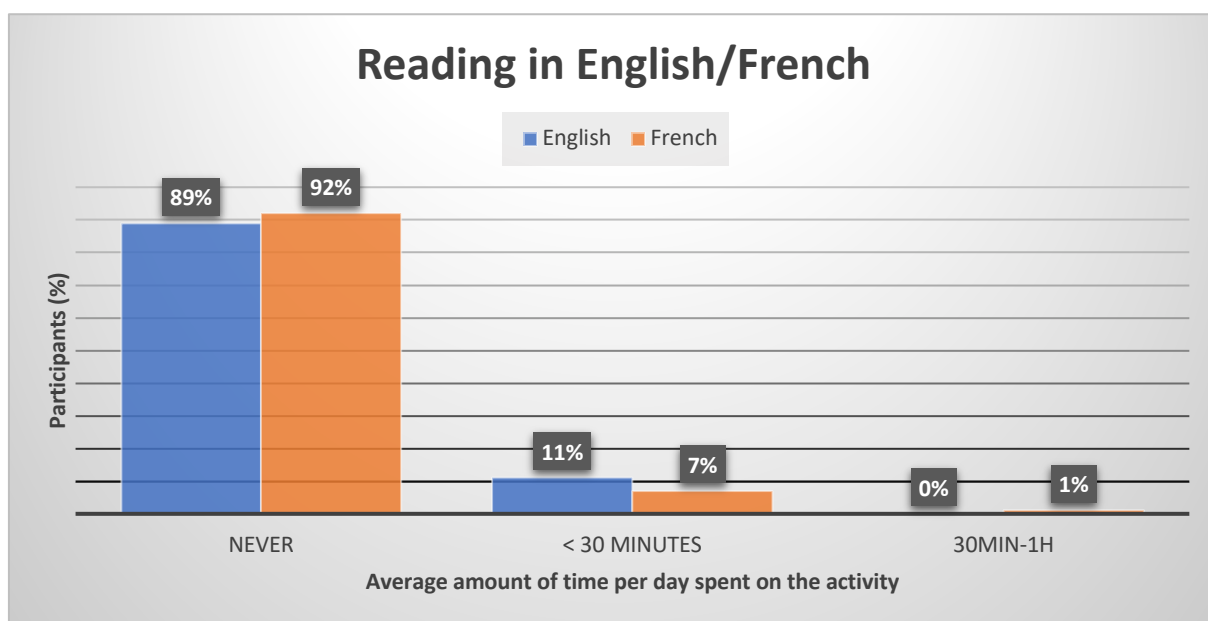


Figure 11: Average amount of time per day that the participants (%) spend reading in English/French (n=71).

4.2.1.4 Gaming

Figure 12 illustrates that the participants game more often in English than they do in French. Indeed, 62% of the participants stated that they play English games on a daily basis. This is in stark contrast with the 7% (i.e. 5 participants) who indicated playing games in French.

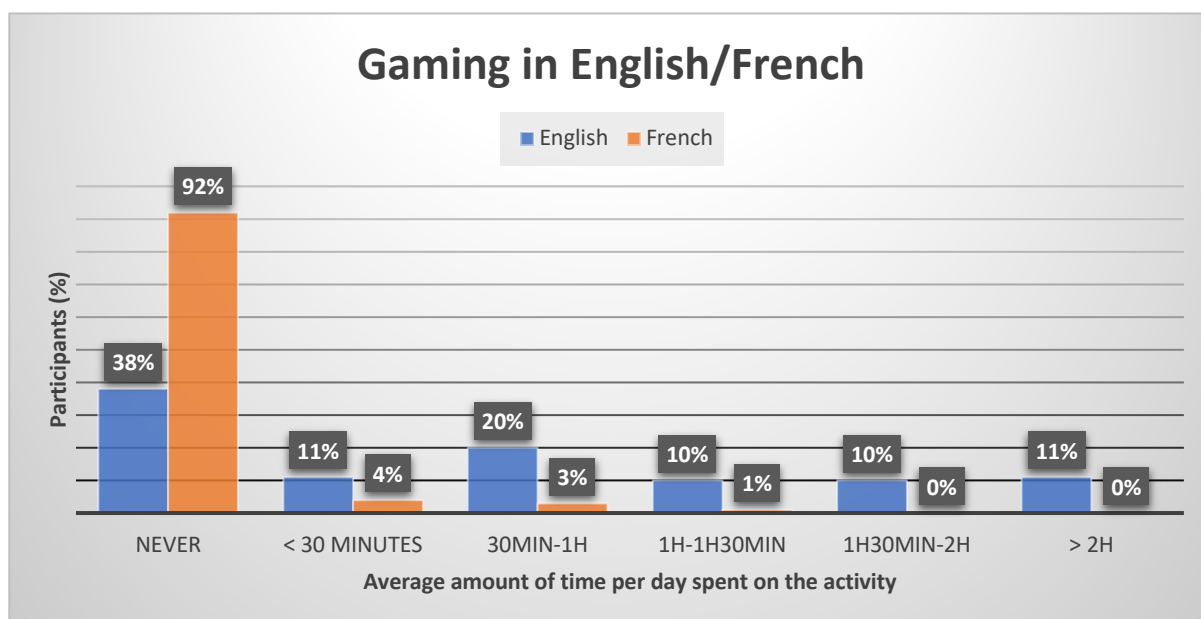


Figure 12: Average amount of time per day that the participants (%) spend gaming in English/French (n=71).

Furthermore, gaming in English was found to be the activity that is engaged in the longest out of all eight language-input activities. Eleven percent (i.e. 8 out of 71 pupils) of the participants indicated that they game on average more than 2 hours a day. For comparison, the second highest percentage found for this amount of exposure is 6% (i.e. 4 pupils) for watching English TV with subtitles in the home language and for listening to English music.

4.2.1.5 Social media

The majority (69%) of the participants use social media platforms in English on a daily basis, as Figure 13 demonstrates. Almost half of the pupils (31%) who engage in this activity do so for less than half an hour a day. Examples of social media use in English are communicating in English through Messenger or watching English YouTube videos.

Figure 13 also illustrates that the participants who use social media in French are in the minority. Merely 15% of the pupils indicated that they use social media in French, with 14% doing so for less than 30 minutes per day. Only one participant claims to engage in this activity between 1 hour and 30 minutes to 2 hours on average per day.

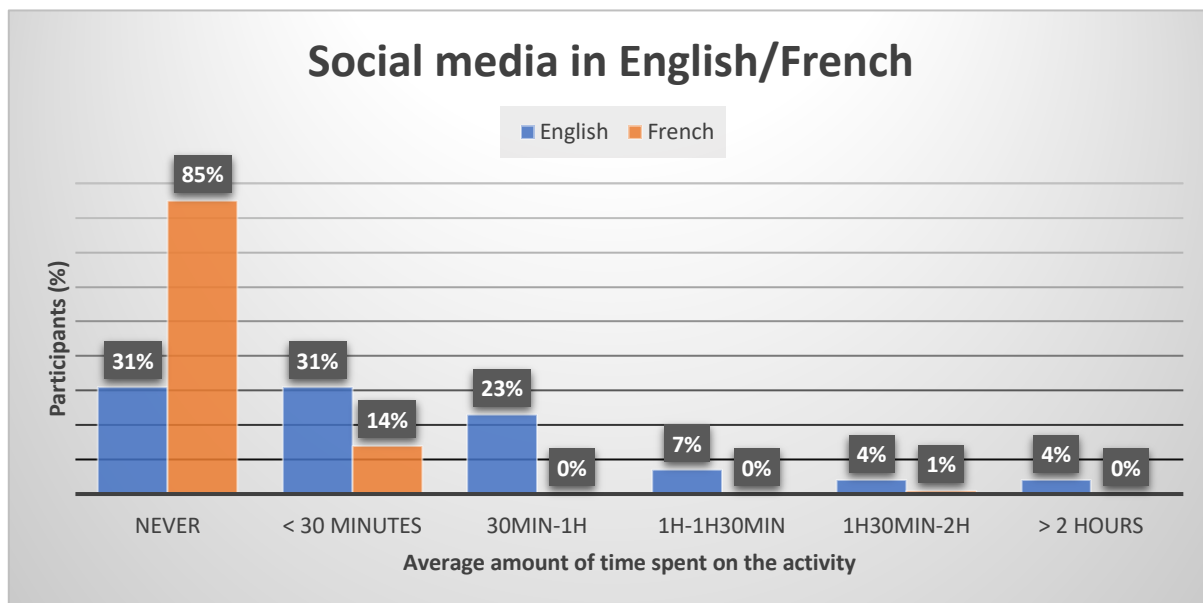


Figure 13: Average amount of time per day that the participants (%) spend using social media in English/French (n=71).

4.2.1.6 Speaking

Figure 14 illustrates that 55% of the 71 participants speak English on a daily basis, although the majority of them only engages in this activity for a short amount of time. Indeed, 46% of the pupils indicated speaking English less than 30 minutes a day. Only 3% (i.e. 2 pupils) maintained to speak English between 1 hour and 30 minutes to 2 hours per day.

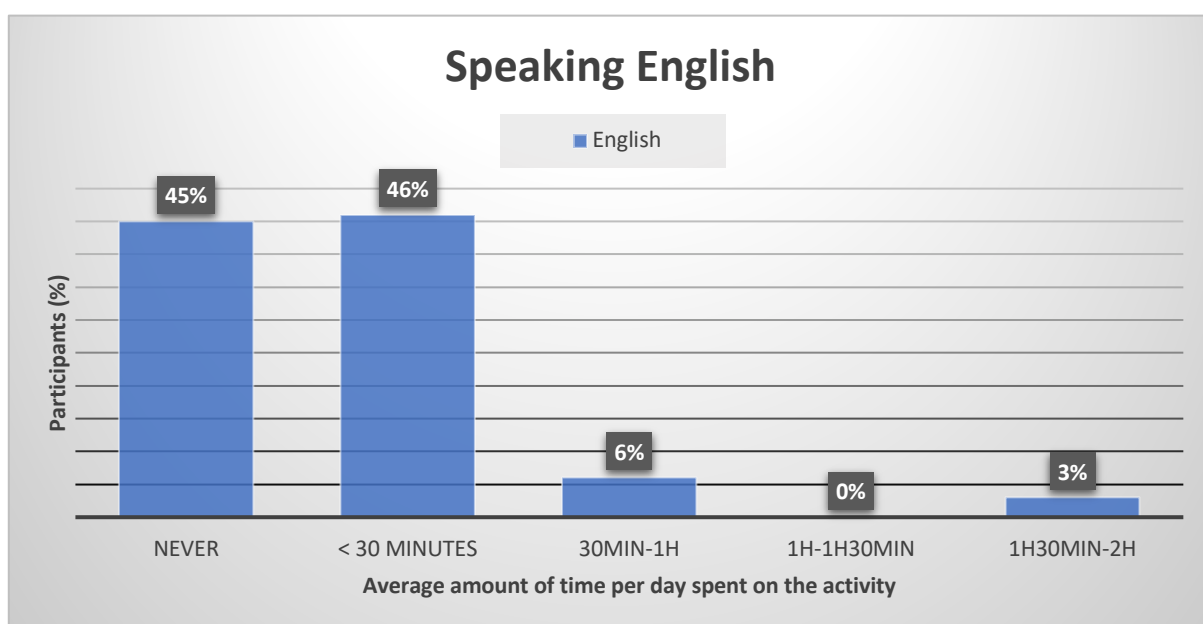


Figure 14: Average amount of time per day that the participants (%) spend speaking English (n=71).

4.2.2 The differences in exposure to English and French

A paired-samples t-test was conducted to compare the mean of exposure to French and English for each input activity. Significance level was set at $p < 0.05$. The mean of each language activity was calculated after transposing every amount of exposure indicated by the participants into a value ranging from 0 to 2, 0 meaning the participants did not spend any time on this activity on a daily basis, 1 meaning less than 1 hour a day, 2 meaning more than 1 hour a day.

As shown in Table 6, the paired-samples t-test revealed a significant difference in exposure for each activity except for reading. This lack of significance can be ascribed to the fact that barely any participants indicated reading in English or French (see supra 4.2.1.3).

Paired Samples Test									
Paired Differences									
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig.(2-tailed)
					Lower	Upper			
Pair 1	TVFRwithoutsubt-TVewithoutsubt	-.43662	.67045	.07957	-.59531	-.27793	-5.487	70	.000*
Pair 2	TVFRwithFsubt-TVewithsubt	-.21127	.53226	.06317	-.33725	-.08528	-3.345	70	.001*
Pair 3	TVFRwithHLsubt-TVewithHLsubt	-.54930	.89105	.10575	-.76020	-.33839	-5.194	70	.000*
Pair 4	ListeningMusicFR-ListeningMusicE	-.78873	.77304	.09174	-.97171	-.60576	-8.597	70	.000*
Pair 5	ReadingFR-ReadingE	-0.02817	.41307	.04902	-.12594	.06960	-.575	70	.567
Pair 6	GamingFR-GamingE	-.83099	.79257	.09406	-1.01858	-.64339	-8.835	70	.000*
Pair 7	SocialMediaFR-SocialMediaE	-.67606	.73241	.08692	-.84941	-.50270	-7.78	70	.000*

Table 6: Paired Samples test language input activities French versus English.

4.2.3 The language-input activities and their relation to the test scores

A Kruskal Wallis test was used to examine the relation between the independent variables (language-input activities) and the receptive vocabulary size scores, for the eight activities. Significance was set at $p < 0.05$. The language input activities analysed are: (1) watching television in English/French without subtitles, (2) watching television in English/French with English/French captions, (3) watching television in English/French with subtitles in the mother tongue, (4) listening to English/French music, (5) reading in English/French, (6) gaming in English/French, (7) using YouTube/social media in English/French, and (8) speaking English.

As shown in Table 7, reading, gaming, using social media, and speaking English were found to have a significant relation with the PPVT-IV scores, and watching French television without subtitles or captions and reading French has a significant relation with the EVIP results.

<i>EXPOSURE EFFECTS</i>	PPVT-IV English	EVIP French
Watching programmes in E/F without subtitles/captions	.374	.086*
Watching programmes in E/F with English/French captions	.241	.192
Watching programmes in E/F with subtitles in the mother tongue	.116	.418
Listening to English/French music	.236	.203
Reading in E/F	.001*	.079*
Gaming in E/F	.014*	.682
YouTube/social media in E/F	.048*	.179
Speaking E	.015*	/

Table 7: Relationship between the continuous independent variables and the test scores as measured by a Kruskal Wallis test.

Figures 15 to 19 demonstrate that the significant influence of the six aforementioned variables on the vocabulary scores are of a positive nature. Pupils who watch a lot of French television without captions or subtitles performed better on the vocabulary test than those who do so less frequently or never. Similarly, pupils who often read in English, game in English, use social media in English, and speak English obtained higher scores on the PPVT-IV test.

The only variable that appeared to have a significant negative relation with the test results was reading in French. The pupils who maintained to read in French on a daily basis seemed to have lower scores than the pupils who never read in French. However, this finding does not seem to be very plausible and is most likely attributable to the fact that only 6 out of the 71 participants indicated reading French on a daily basis.

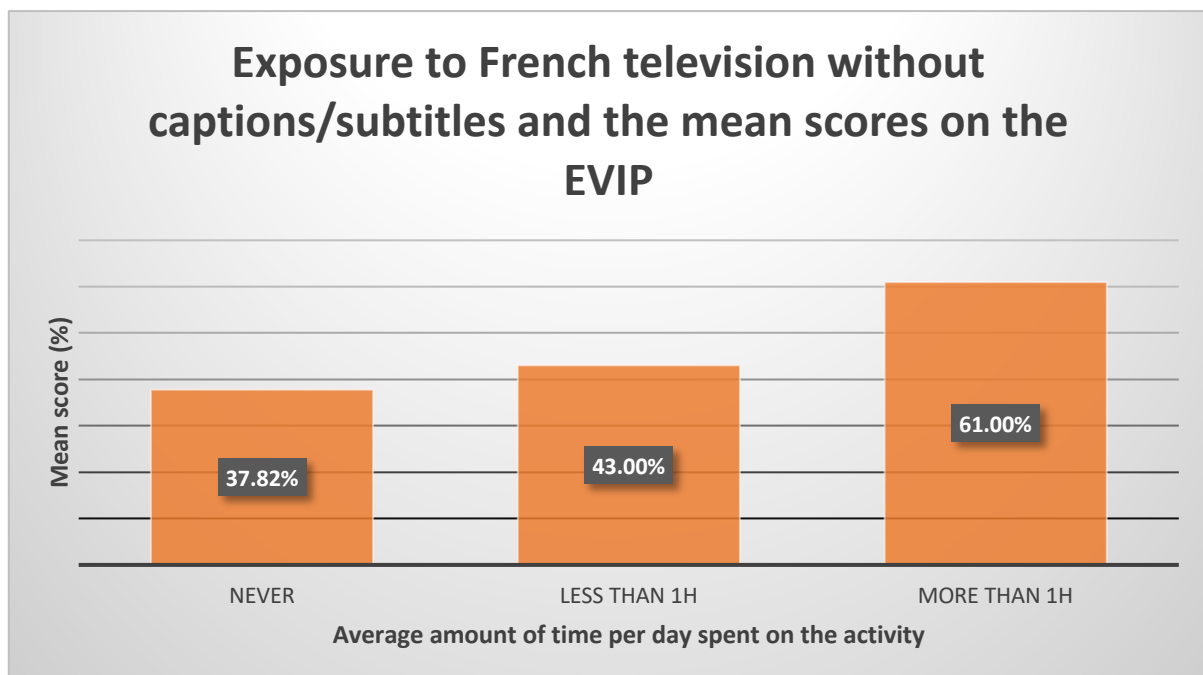


Figure 15: Mean vocabulary size test scores of the participants who watch French TV without captions/subtitles for more than an hour a day, less than an hour a day, or never (n=71).

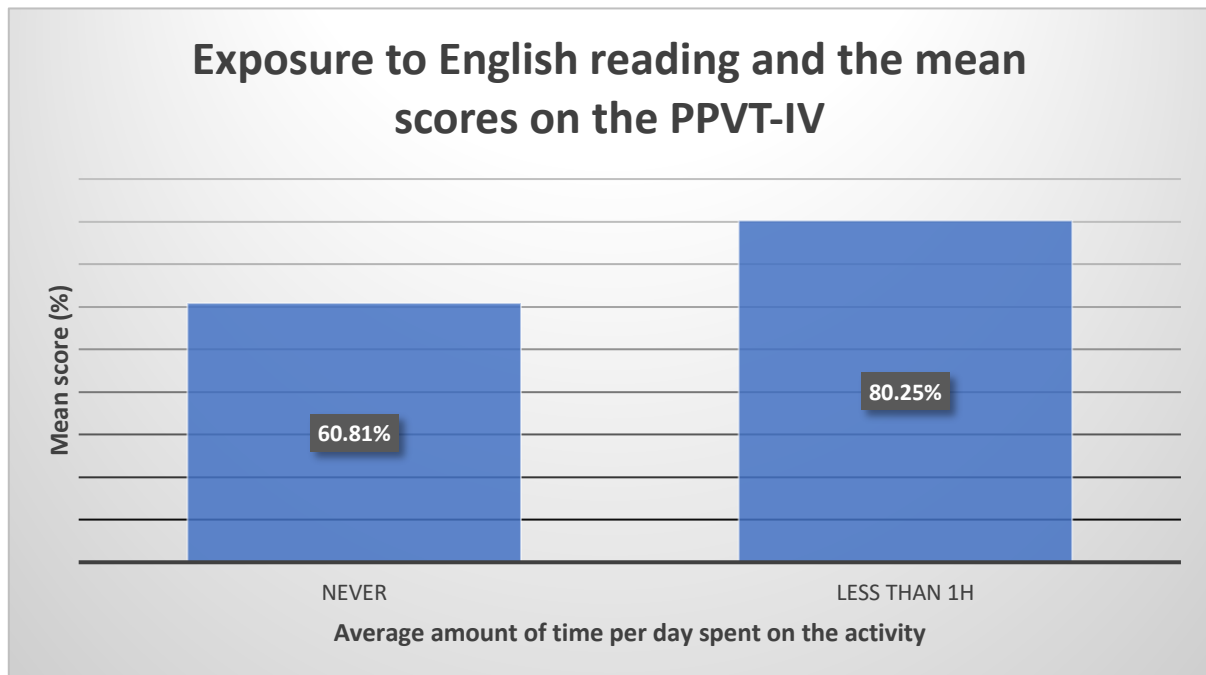


Figure 16: Mean vocabulary size test scores of the participants who read in English for less than an hour a day or never ($n=71$).

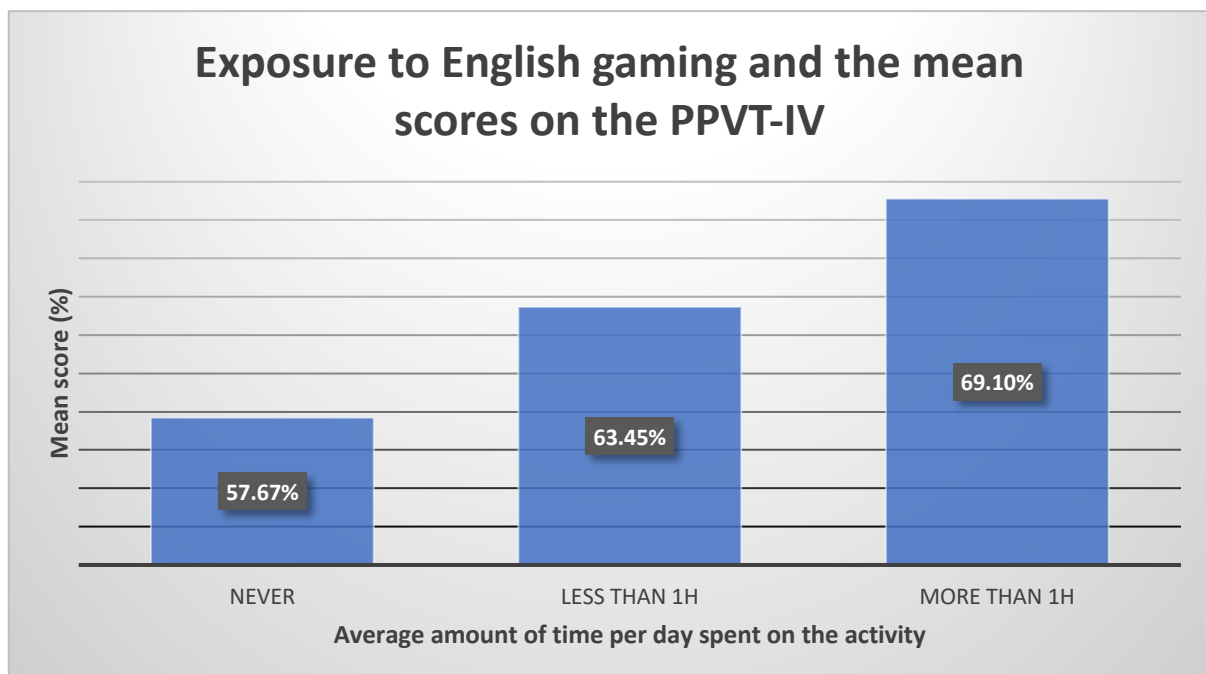


Figure 17: Mean vocabulary size test scores of the participants who play English games for more than an hour a day, less than an hour a day, or never ($n=71$).

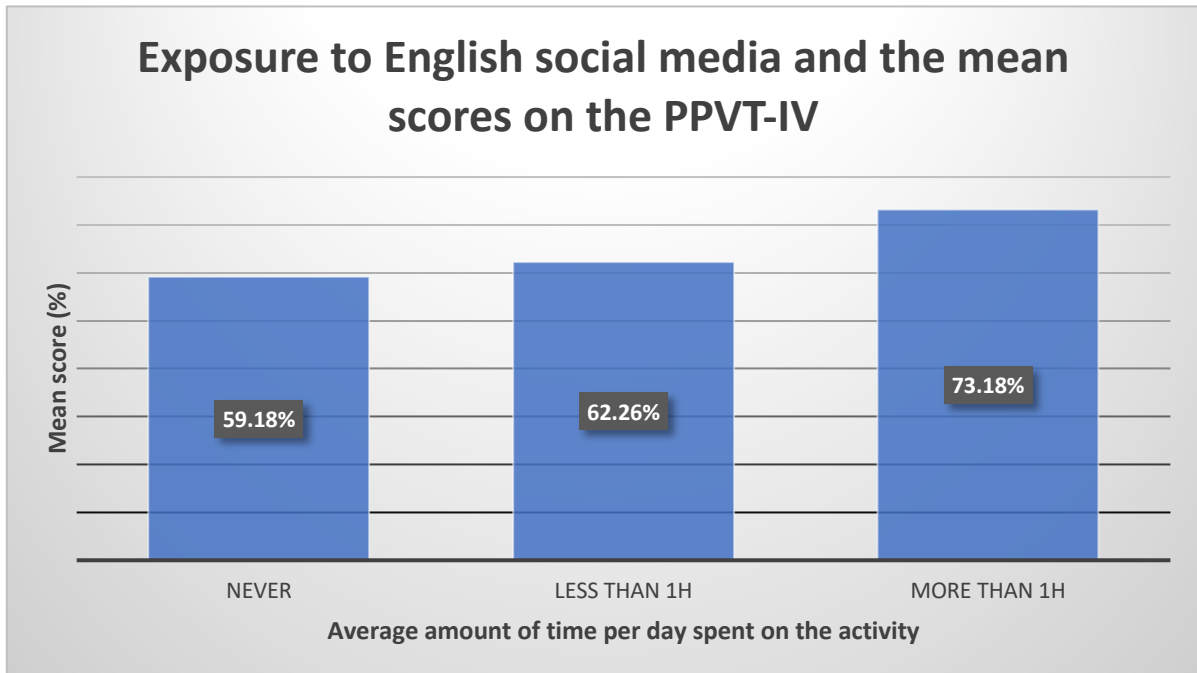


Figure 18: Mean vocabulary size test scores of the participants who use English social media more than an hour a day, less than an hour a day, or never (n=71).

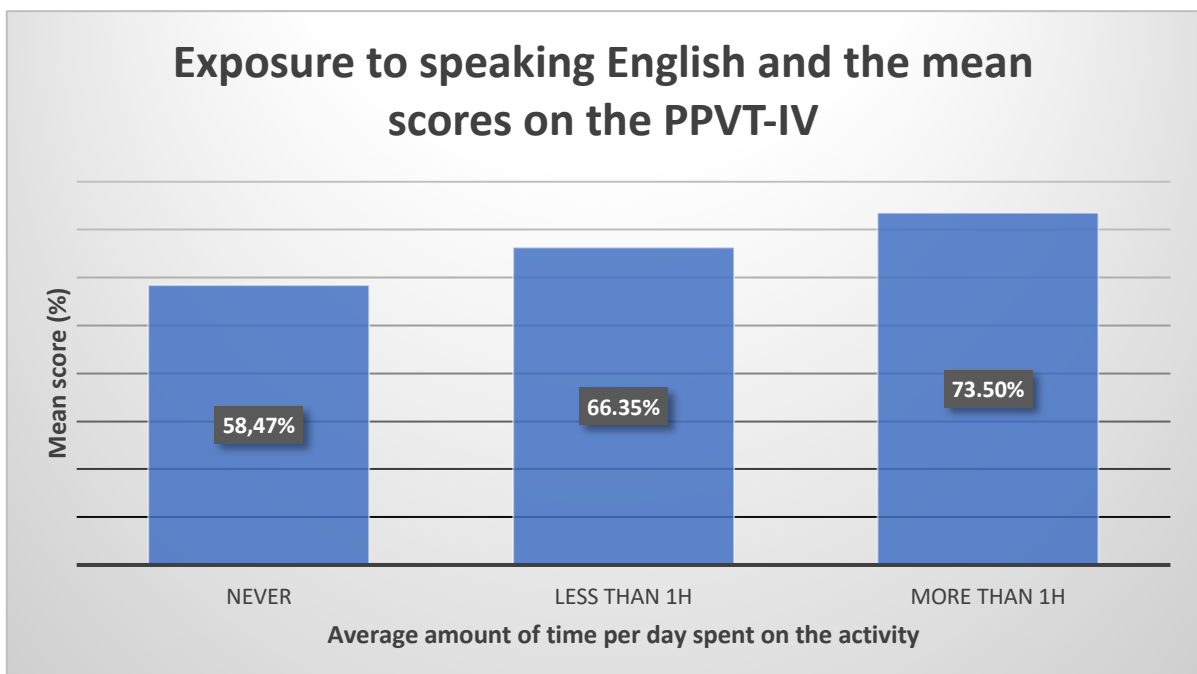


Figure 19: Mean vocabulary size test scores of the participants who speak English more than an hour a day, less than an hour a day, or never (n=71).

4.2.4 Nominal variables: speaking, attitude, speaking opportunities, and gender

In addition to the eight continuous variables mentioned above, the questionnaire also gathered data on four nominal variables, namely (1) speaking English yourself sometimes, (2) attitude towards English/French, (3) looking for opportunities to speak English/French, and (4) gender. In the following subparagraphs, the data for each of those activities will be discussed and illustrated.

The nominal variable ‘speaking English yourself sometimes’ differs from the continuous variable ‘speaking English’ (see supra 4.2.1.6) in that it does not examine the average amount of time pupils engage in English speaking, but rather looks to investigate the circumstances in which pupils speak English.

As mentioned in 3.2.2.1, the nominal variables ‘speaking French yourself sometimes’, and ‘contact with English/French native speakers’ were excluded from this study due to a misinterpretation of the corresponding questions on the questionnaire.

4.2.4.1 *Speaking yourself sometimes*

In accordance with Figure 14, Figure 20 demonstrates that the majority (62%) of the participants sometimes converse in English.

The pupils were also asked to provide situations in which they converse in English. Their answers can be divided into three categories: (1) pupils who speak English for fun, (2) pupils who do not speak English or who do so because they have to, and (3) pupils who speak English while gaming. The first category includes pupils who, for instance, speak English with their family and friends despite sharing at least one other language with them. The second category comprises pupils who never converse in English, or who only do so when they are, for instance, on vacation and they have to communicate with someone who does not share any other language with them. The third category are children who speak English while gaming

either for fun or because the person they are talking to does not share any other language with them.

Of the 45 (62%) pupils who indicated speaking English sometimes, 24 do so for fun, 16 do so because the person they are communicating with does not share any other language with them, and 5 do so while gaming.

The latter finding might appear strange considering that gaming in English proved to be a highly popular language-input activity among the male participants. However, not all games require players to communicate with each other.

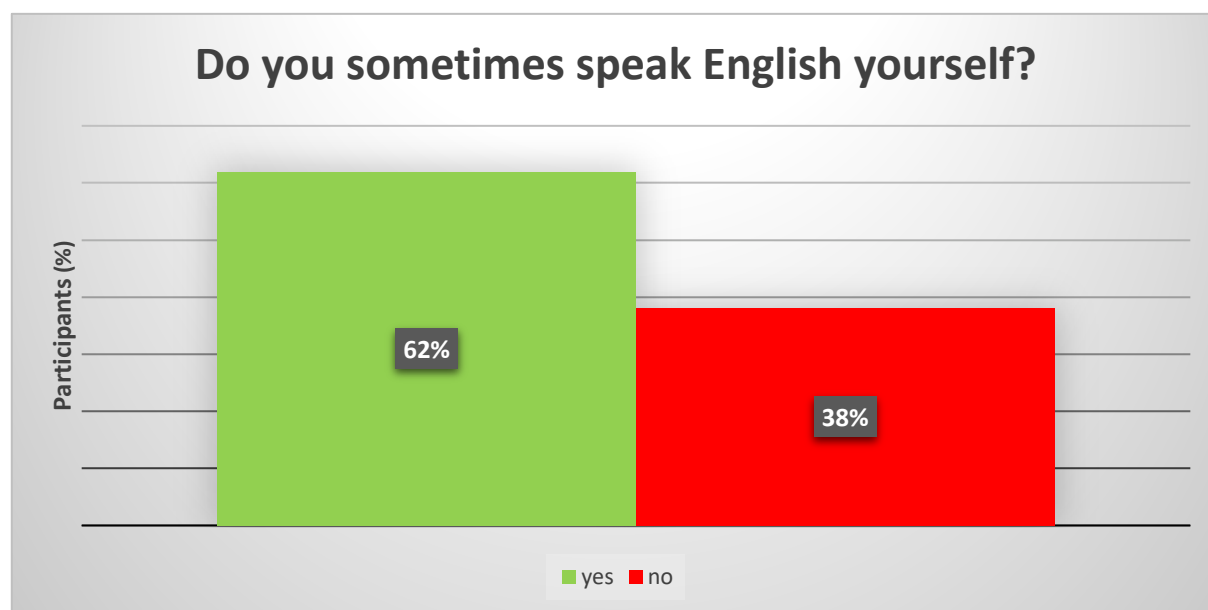


Figure 20: Percentage of participants who speak or do not speak English sometimes (n=71).

4.2.4.2 Attitude

Figure 21 demonstrates the popularity of English among the 71 participants. No less than 94% of the pupils expressed a fondness for English. Only 3% (i.e. 2 pupils) indicated disliking the language. The remaining 3% either circled both yes and no or left the question on their attitude towards English blank. Consequently, these pupils were considered to be undecided.

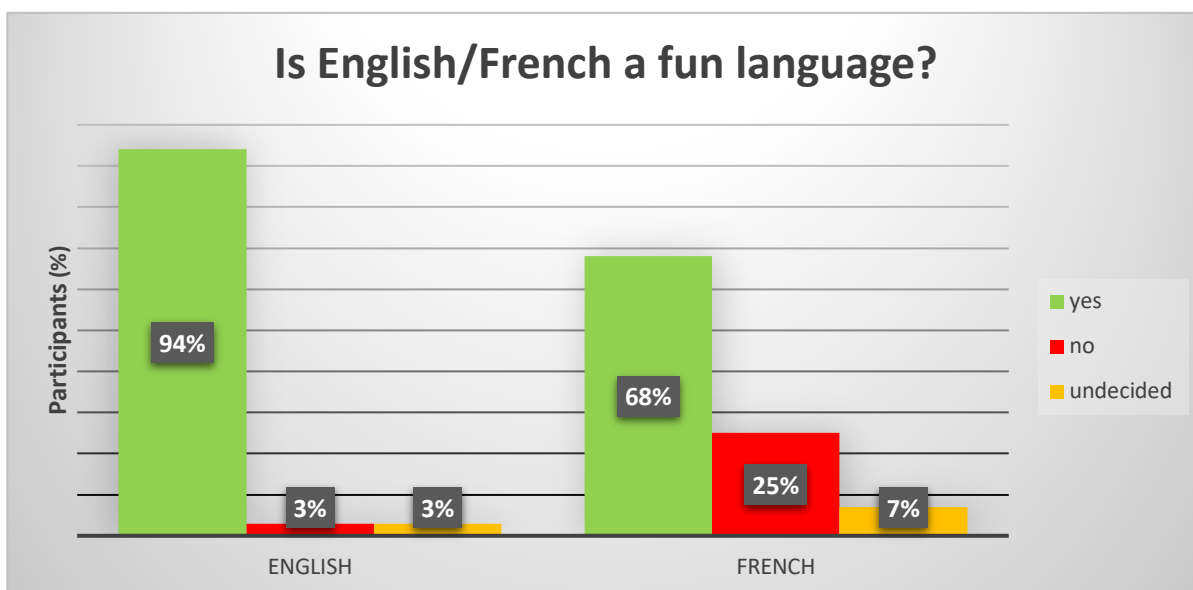


Figure 21: Percentage of participants who like or dislike English/French (n=71).

While French is not as popular as English, more than half of the participants still expressed a liking for the language. Twenty-five percent stated that they disliked French, and 7% remained undecided.

4.2.4.3 Looking for speaking opportunities

Not many participants appear to actively seek out opportunities to speak English or French, as Figure 22 illustrates. Indeed, 34% stated that they sometimes intentionally look for chances to speak English, and only 24% claimed to do so for French.

The participants were also asked to provide details of the circumstances in which they actively seek out English/French speaking opportunities or the reasons why they do not look for such opportunities. Broadly, the pupils who indicated looking for English speaking opportunities do so either for fun or to practise their English skills. The children who do not seek out such opportunities do so because they are either not interested (“Dutch is easier”, “it’s not a school requirement yet”), or because they feel like their English competence is not good enough yet. One pupil even expressed her fear of making a fool of herself by speaking English because she considered her English skills to be terrible.

Similar reasons were given for French. The children who indicated looking for French speaking opportunities do so either for fun or for practice. By contrast, pupils who do not look for such opportunities do so because they dislike the language (“boring”, “too difficult”, “strange language”), because they are not interested in actively speaking French (“Dutch is easier), or because they think they are not good enough at French to speak it actively.

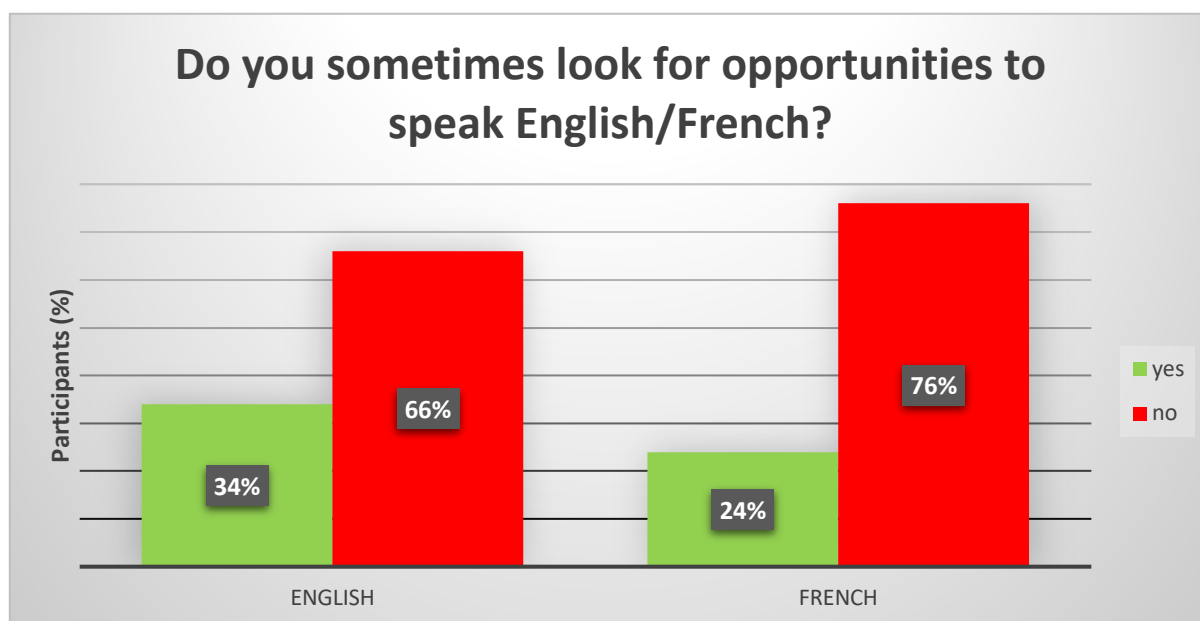


Figure 22: Percentage of participants who look or do not look for English or French speaking opportunities (n=71).

4.2.4.4 Gender

Out of the 71 participants, 38 pupils were girls and 33 pupils were boys. This resulted in a relatively even gender distribution for this study, as demonstrated by Figure 23.

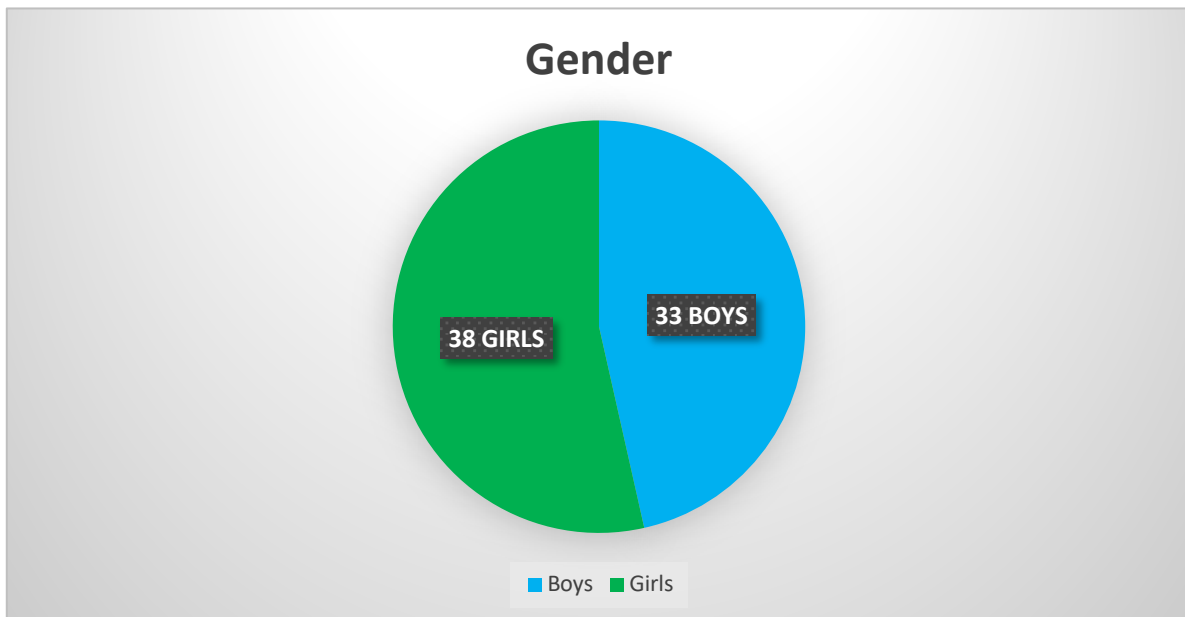


Figure 23: Gender distribution of the participants ($n=71$).

4.2.5 The nominal variables and their relation to the test scores

A Mann-Whitney U test was used to examine the relation between the independent nominal variables and the receptive vocabulary size scores. Significance was set at $p < 0.05$. The variables that were analysed are: (1) speaking English yourself, (2) attitude towards English/French, (3) looking for English/French speaking opportunities, and (4) gender.

The results of the analyses demonstrate that speaking English yourself and gender were found to have a significant relation with the PPVT-IV scores, and that attitude towards French has a significant relation with the EVIP results, which is displayed in Table 8.

	PPVT-IV English	EVIP French
Speaking E yourself	.003*	/
Attitude E/FR	.144	.013*
Looking for E/FR speaking opportunities	.064	.751
Gender	.004*	.457

Table 8: Relationship between the nominal independent variables and the test scores as measured by Mann-Whitney U tests.

Figure 24 demonstrates that pupils who answered that they sometimes speak English themselves obtained, on average, higher scores on the PPVT-IV than those who did not. The mean score of the former is 9.15 points higher than the mean score of the latter.

Figure 25 illustrates that pupils who have a positive attitude towards French scored, on average, higher on the EVIP test than those who do not. Indeed, the group of participants who indicated liking French obtained a mean score of 40.90/100, which is 6.40 points higher than the mean score of the group who disliked French. The mean score of the pupils who expressed a negative attitude towards French and those who remained undecided is rather similar, differing by merely 0.70/100.

As previously mentioned, the category ‘undecided’ comprises the few participants who circled both yes and no when responding to the question ‘Do you think French is a fun language?’, or who left the question blank.

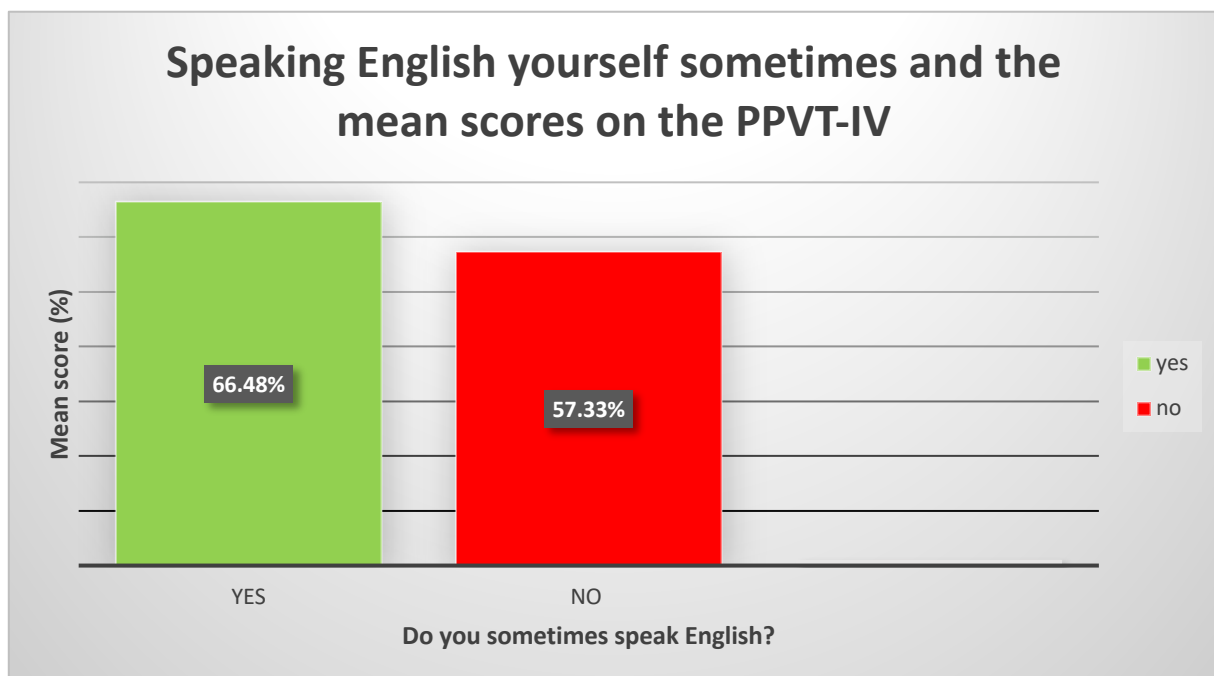


Figure 24: Mean vocabulary size test scores of the participants who sometimes speak English and those who do not (n=71).

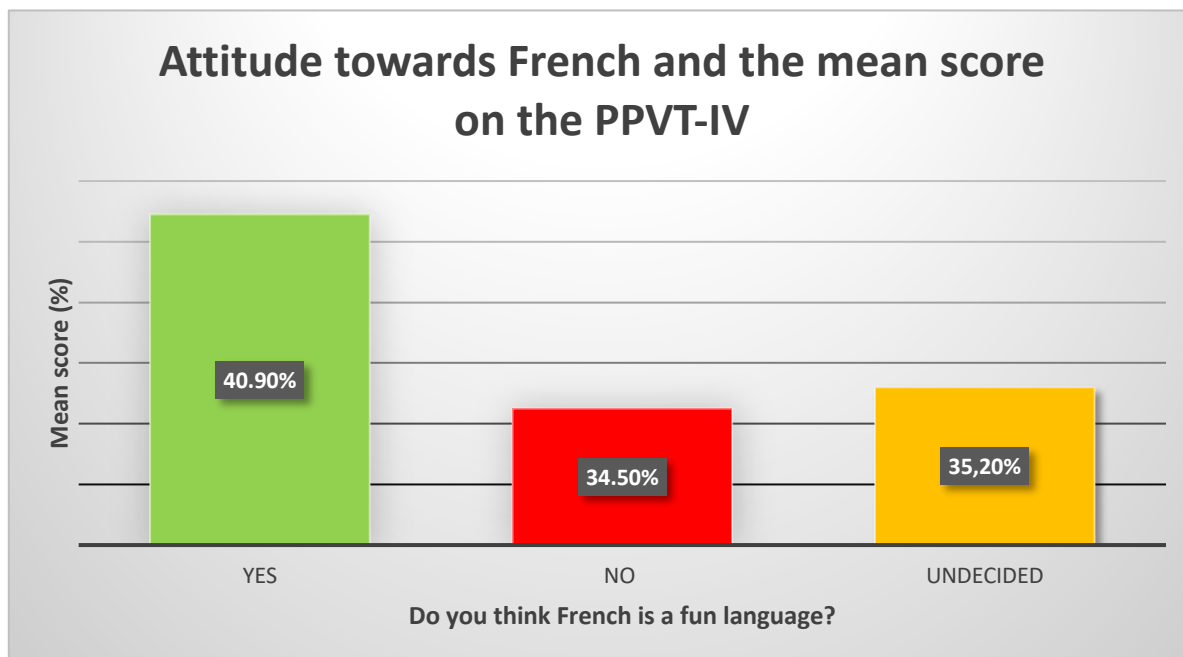


Figure 25: Mean vocabulary size test scores of the participants who like or dislike French (n=71).

Concerning the significant effect of gender, Table 9 demonstrates that the boys outperformed the girls on the English test, with a mean score of 67.70/100 versus 58.92/100. The range of the boys' test results is slightly smaller than that of the girls. Furthermore, their scores are overall higher, with a minimum score of 45/100 and a maximum of 97/100. By contrast, the minimum and maximum scores obtained by the girls are respectively 12 and 8 points lower than those of the boys.

	Score boys PPVT-IV (on 100)	Score girls PPVT-IV (on 100)
Mean	67.70	58.92
Median	66.00	57.50
Mode	58.00	58.00
Standard deviation	12.35	12.88
Range	52.00	56.00
Minimum	45.00	33.00
Maximum	97.00	89.00

Table 9: Relationship between gender and the scores on the PPVT-IV.

The boys' higher scores on the English vocabulary test might be attributable to the fact that they appear to game in English considerably more than girls (since gaming was shown to positively influence the participants vocabulary size by the Kruskal Wallis Test), as illustrated in Figure 26. Only 9% of the boys responded never playing English games. This is in stark contrast with the 63% of girls who indicated never doing so. In addition, no less than 24% of the boys maintained to game over 2 hours a day on average. This was the highest percentage observed among the male participants. By contrast, zero girls responded to game for that long. In fact, most of the girls who did indicate playing English games only do so for less than 30 minutes a day.

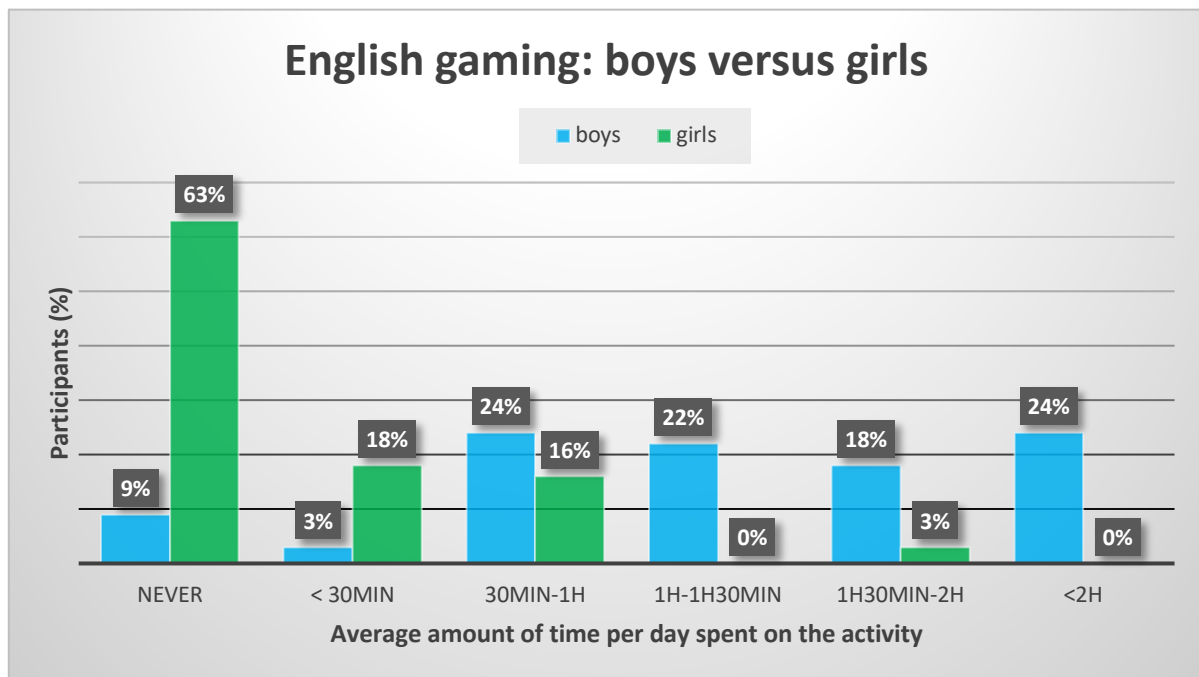


Figure 26: Average amount of time per day boys ($n=33$) versus girls ($n=38$) engage in English gaming.

Although gender was not found to be a significant predictor of the pupils' French test scores, it is still interesting to observe that the girls performed slightly better than the boys on the EVIP test, with a mean score of 39.31% versus 38.36% as shown in Table 10. In addition, the girls' minimum score was 5% higher than that of the boys. However, the boys' maximum score was 16% higher than that of the girls.

	Score boys EVIP (on 100)	Score girls EVIP (on 100)
Mean	38.36	39.31
Median	37.00	39.50
Mode	26.00	37.00
Standard deviation	11.34	7.56
Range	47.00	35.00
Minimum	14.00	19.00
Maximum	61.00	54.00

Table 10: Scores on the EVIP test according to gender.

5 DISCUSSION

The first research question aimed to compare Flemish pupils' English receptive vocabulary size prior to instruction with their French receptive vocabulary size during instruction. Based on Van Hoecke's (2017) findings, it was hypothesised that the former would exceed the latter. This hypothesis was substantiated. Indeed, the mean score of the English PPVT-IV (63%) was nearly twice the mean score of the French EVIP test (38.87%). In other words, the participants' receptive vocabulary size of a non-instructed language proved to be larger than their receptive vocabulary size of a language they had been taught for approximately one year. These findings confirm the false beginner status in English as observed in previous research and demonstrate the important impact of incidental English acquisition (De Jans, 2013; De Wilde & Eyckmans, 2017; Kuppens, 2007; Van Hoecke, 2017; Willems, 2015).

In addition, the PPVT-IV scores revealed a great discrepancy in English competence. Some pupils proved to already have an extensive English vocabulary knowledge (maximum score = 97%), whereas others had a rather limited English vocabulary size (minimum score = 33%). These findings demonstrate the challenges of the false beginner status for English teachers, as they are faced with the difficult task of finding a way to keep the already proficient students motivated and challenged while making sure that the less proficient students do not feel discouraged and left behind.

A similar disparity was observed in French competence, albeit not as pronounced: some pupils obtained really low results on the EVIP test (minimum score = 14%), whereas others performed relatively well (maximum score = 61%). These findings suggest that it is not solely English teachers but also French teachers who are faced with the challenge of instructing very heterogenous classes.

Furthermore, it was found that the higher scores on the PPVT-IV were not attributable to the close lexical relationship between English and Dutch. Indeed, the mean score of the PPVT-IV (45.11%) remained greater than the mean score of the EVIP (30.94%) after the cognates in both tests had been identified and eliminated. This difference was found to be

significant and consequently implies that the participants' English receptive vocabulary size exceeds their French receptive vocabulary size despite the cross-linguistic similarities between English and Dutch. These findings demonstrate how important the impact of language exposure can be, and how incidental language acquisition can exceed the gains of formal language instruction.

The findings also confirmed the facilitative effect of cognates as observed in previous research (Peters & Webb, 2018). Indeed, the mean scores of both the PPVT-IV and the EVIP test decreased once all cognates had been eliminated. The English mean score dropped by 17.89% and the French mean score by 7.93%.

The second research question investigated the hypothesis that the participants' exposure to English prior to instruction would exceed their extracurricular exposure to French. This hypothesis was based on Van Hoecke's (2017) findings and was substantiated. The difference between the amount of exposure to English and to French was found to be significant for six of the seven examined exposure variables, namely (1) watching English or French TV or films without subtitles or captions, (2) watching English or French TV or films with captions, (3) watching English or French TV or films with subtitles, (4) listening to English or French music, (5) gaming in English or French, and (6) using social media in English or French. The only variable that did not demonstrate a significant difference in exposure was reading in English or French, which is incongruent with Van Hoecke's (2017) findings. This may be due to the fact that only a limited number of participants (13 out of 71) in this study indicated engaging in this activity on a daily basis.

Furthermore, all of the children reported having extracurricular exposure to both English and French to some extent. The most popular and least popular language-input activities are the same for both languages and are listening to English/French music and reading in English/French respectively. Furthermore, gaming in English was found to be the activity that is engaged in the longest out of all eight language-input activities, with 8 participants who game more than 2 hours per day on average.

The third research question focussed on the individual factors that are related to pupils' English and/or French receptive vocabulary knowledge. Five exposure factors were found to be significant predictors of the participants' test scores, one for the French test scores and four for the English test scores. Pupils who regularly watch French TV programmes or films without subtitles or captions performed better on the EVIP test than pupils who do so less frequently or never. With regard to the PPVT-IV results, the participants who engaged in the following activities on a daily basis obtained higher results: reading in English, gaming in English, using YouTube/social media in English, and speaking English. These findings once again confirm previous research demonstrating that Flemish pupils can incidentally acquire English through the aforementioned informal language-input activities, (De Jans, 2013; De Wilde & Eyckmans, 2017; Kuppens, 2007; Willems, 2015). Additionally, the results demonstrate that French can also be incidentally acquired through extracurricular exposure.

It should be noted that reading in French was also found to be a significant predictor of the pupils' test scores but that this relation appeared to be negative, suggesting that the more pupils read in French the worse they performed on the EVIP test. However, this finding seems very implausible and can most likely be ascribed to the very limited number of pupils (6 out of 71) who indicated engaging in this activity on a daily basis.

The aforementioned findings demonstrate that the predictive value of exposure variables differs between English and French. Indeed, gaming and social media usage, for instance, were found to be predictive variables in English, but not in French. This could be ascribed to the predominance of English in Flemish society and to the fact that English is the default language for gaming (Sundqvist & Sylvén, 2014). These factors make it simply more common for Flemish pupils to game and use social media platforms such as YouTube in English than in French, as was confirmed by the pupils' average amount of daily exposure to these activities (62% of the pupils gamed in English versus 8% in French, 69% of the pupils use social media in English versus 15% in French). Considering the limited number of participants who indicated engaging in French gaming and French social media usage on a daily basis, it is not surprising that no significant relation was found between these activities and the pupils' French test scores.

A possible explanation for the difference in predictive value between watching English and watching French TV programmes or films without captions or subtitles might be that it is less self-evident to watch French films and programmes in Flanders than it is to watch English films and programmes, and that engaging in this French-input activity therefore requires more effort and motivation. Indeed, English is very prominent and popular in Flemish media. Considering this great access to and popularity of English films and TV programmes in Flanders, it requires less effort from pupils to find an English film or TV series to watch. By contrast, French films and TV programmes are less popular and rarer in Flemish media. Accordingly, the participants who indicated watching French TV without captions or subtitles on a daily basis may do so particularly because they want to improve their French competence rather than because they want to watch a generally considered good and popular film or programme. It is also interesting to note that the 11 participants who indicated watching French TV without subtitles or captions on a daily basis all had a positive attitude towards French, an individual variable that was also found to be a significant predictor of the pupils' French test scores. This may corroborate the idea that pupils who watch French TV on a daily basis may be willing to put in the extra effort to find French films or TV programmes because they are interested in the language and want to improve their language skills.

There were a number of factors that were not found to significantly affect the participants' test scores. For French, these factors were watching French TV with captions or subtitles, listening to French music, gaming in French, and using social media in French. For English, the insignificant factors were watching English TV with and without subtitles or captions and listening to English music.

However, previous studies conducted in Flanders did find significant relations between English vocabulary knowledge and exposure to English TV with and without subtitles as well as to English music (De Jans, 2013; Kuppens, 2007; Van Hoecke, 2017; Willems, 2015). The incongruency with De Jans (2013), who found a significant relation between his participants' productive vocabulary scores and their exposure to English TV, can be explained by the higher number of participants in his study who indicated engaging in this informal activity (since he

did not distinguish between TV exposure with or without subtitles or captions), and the fact that he examined a different type of vocabulary knowledge. The discrepancy with Willems' (2015) findings, which revealed that exposure to subtitled English TV programmes positively affected her participants' PPVT-IV scores, can be attributed to the higher number of participants in her study who maintained to engage in this activity. The dissonance with Van Hoecke (2017), who found that listening to English music had a significant positive impact on the pupils' test scores, may be due to the limited number of participants in her study. Lastly, the discordance with Kuppens (2007), who also found a significant relationship between exposure to subtitled English TV and pupils' English vocabulary knowledge, can be explained by the different type of test that was used to measure her participants' vocabulary size. In her study, the participants had to make short translations, whereas this study merely required the pupils to recognise the oral form and meaning of English words.

In addition to the five aforementioned exposure variables, three nominal variables were also found to have a significant influence on the participants' test scores, namely (1) attitude towards French, (2) speaking English yourself sometimes⁹, and (3) gender for the PPVT-IV scores. Pupils who responded having a positive attitude towards French performed better on the EVIP test, which confirms Van Hoecke's (2017) findings. With regard to the PPVT-IV results, pupils who indicated speaking English themselves sometimes obtained higher scores than those who did not. Furthermore, the boys outperformed the girls on the English receptive vocabulary test.

While examining the boys' extracurricular exposure to English, it became clear that their exposure to English gaming is considerably greater than that of girls. This might explain why the boys outperformed the girls on the PPVT-IV. This hypothesis is based on previous

⁹The nominal variable 'speaking English yourself sometimes' differs from the continuous variable 'speaking English' in that it does not examine the average amount of time pupils engage in English speaking, but rather looks to investigate the circumstances in which pupils speak the language.

research which also observed greater English proficiency among male participants and ascribed this to their greater exposure to English gaming (Jensen, 2016; Kuppens, 2007; Sundqvist & Sylvén, 2014).

It is also interesting to note that the reasons why the participants speak English sometimes can be divided into three categories: (1) pupils who speak English for fun, (2) pupils who speak English because they have to, and (3) pupils who speak English while gaming. The latter are children who either have to speak English because they do not share any other language with the person/people they are talking to, or who choose to speak English for fun. The second category includes pupils who only speak English when talking to people who do not share any other language. By contrast, the first category comprises pupils who converse in English with their friends and family regardless of the fact that the people they are talking to share a or multiple languages with them. The fact that this category was the largest (24 of the 45 pupils who indicated speaking English sometimes) and that the vast majority of the participants (94%) indicated having a positive attitude towards English, attests to the popularity and status of English in Flemish society. These findings are in accordance with De Wilde & Eyckmans (2017).

Furthermore, the difference in predictive value between attitude towards English and attitude towards French can be attributed to the fact that there was too little variance in the results of the former variable to be able to find significance. Indeed, no less than 94% or 67 out of 71 participants indicated liking English.

6 CONCLUSION

This master's thesis aimed to provide a clear picture of the development of incidental English acquisition in Flemish pupils and to contrast its impact with that of the formal French instruction they have already received. In order to do so, the English and French receptive vocabulary knowledge of 71 Flemish pupils in the sixth form of primary school was measured by means of the Peabody Picture Vocabulary Test Fourth Edition (PPVT-IV) and its French equivalent *Échelle de Vocabulaire en Images Peabody* (EVIP) respectively. A comparison was drawn between the two vocabulary sizes and a number of variables that may have affected the pupils' language knowledge were examined (i.e. exposure, gender, attitude, opportunities to speak the FL, cognateness).

While a number of studies have already examined incidental English acquisition in Flanders, to my knowledge only one other study, conducted by Van Hoecke (2017), has contrasted the gains of this incidental acquisition with the gains of formal instruction. Furthermore, this study has taken Van Hoecke's (2017) research one step further by considering the potential effect of cognates on the obtained English and French vocabulary scores.

The findings of this study demonstrate that Flemish pupils in the sixth form of primary school have a greater receptive vocabulary knowledge in English than in French, regardless of the cross-linguistic similarities between English and Dutch. Indeed, the mean score of the English vocabulary test was higher than that of the French test and remained so even after all cognates had been identified and eliminated, indicating that Flemish 10 to 12-year-olds perform better in a non-instructed language than in a language they had been instructed in for approximately one year. In other words, the gains of incidental English acquisition exceed those of formal French instruction regardless of the close lexical relationship between English and Dutch.

In addition, the test results indicated a discrepancy in both English and French competence, although the disparity in French was less profound than in English. A considerable

proportion of Flemish pupils proved to already have an extensive English receptive vocabulary size prior to instruction, whereas the English vocabulary knowledge of others remained rather limited. These findings demonstrate the difficulties of the false beginner status for English teachers, as they have to find a way to keep the already proficient pupils motivated and challenged while assuring that the less proficient students do not feel discouraged and left behind. A similar but more moderate disparity was observed in French competence, suggesting that French teachers are also faced with the difficult task of instructing heterogenous classes.

Furthermore, Flemish pupils' extracurricular exposure to English proved to significantly exceed their extracurricular exposure to French for six out of seven exposure variables, namely (1) watching English or French TV or films without subtitles or captions, (2) watching English or French TV or films with captions, (3) watching English or French TV or films with subtitles, (4) listening to English or French music, (5) gaming in English or French, and (6) using social media in English or French. The only variable that did not demonstrate a significant difference in exposure was reading in English or French, which was ascribed to the very limited number of participants (13 out of 71) who indicated engaging in this activity on a daily basis.

This study also identified five exposure variables as significant predictors of the pupils' English or French test scores. The scores on the French receptive vocabulary test proved to be significantly affected by the average amount of time per day that pupils watch French TV without captions or subtitles. The more the children engaged in this activity, the better their French test results. The English receptive vocabulary test scores were found to be significantly and positively influenced by the amount of daily exposure the pupils had to English gaming, English social media, English speaking, and English reading. These findings demonstrate the important impact of language exposure on language competence.

Additionally, three individual variables were found to have a significant positive relation with the pupils' English or French test scores. The pupils who indicated having a positive attitude towards French performed better on the French receptive vocabulary test. With regard to the English test scores, it was found that pupils who sometimes communicate in

English¹⁰ obtained higher results and that boys outperformed girls. The latter was ascribed to the boys' considerably greater exposure to English gaming based on previous research that observed greater English proficiency among male participants due to their greater exposure to English gaming (Jensen, 2016; Sundqvist & Sylvén, 2014).

It is also interesting to mention that many children stated that they sometimes converse in English for fun, meaning that they deliberately decide to speak English even though they share at least one other language with the person they are talking to. This is a very remarkable phenomenon. Consequently, the reasons behind this behaviour merit further investigation, as has been suggested by De Wilde & Eyckmans (2017).

Furthermore, researching the reasons behind Flemish pupils' extracurricular exposure to English and French might also provide some valuable insights. Indeed, knowing the pupils' motivation for engaging in certain informal language-input activities may result in a better understanding of why certain exposure variables were found to be significant predictors of English test scores but not of French test scores and vice versa.

It should be noted that, much like any other study, this research has its limitations. Firstly, while the questionnaires provided detailed insights into the pupils' extracurricular exposure to English and French, their results should be treated with caution. Especially considering the young age of the participants, it is likely that some children might have over- or underestimated their average amount of daily exposure.

Secondly, the EVIP test might have contained vocabulary that even native French speakers in Europe would not have been able to recognise, considering that the test was

¹⁰ The nominal variable 'speaking English yourself sometimes' differs from the continuous variable 'speaking English' (see supra 4.2.1.6) in that it does not examine the average amount of time pupils engage in English speaking, but rather looks to investigate the circumstances in which pupils speak English.

designed based on the vocabulary knowledge of Canadian French speakers. Consequently, the pupils would not have been able to recognise those word forms and their meaning either. Nevertheless, only the word ‘chaudière’ as a translation for the Dutch word ‘emmer’ was explicitly marked as Canadian French in the monolingual dictionary *Le Petit Robert* (Rey, Rey-Debove, & Robert, 2014), indicating that the impact of this limitation to the study may have been marginal.

Thirdly, using an objective criterion, that is the Levenshtein distance formula, to identify the cognates in both vocabulary tests meant that the salience of the cross-linguistic similarities could not be taken into account. Consequently, some less obvious cognates were identified, such as the French word ‘rude’ and its Dutch translation ‘ruw’. Conversely, other similar sounding word pairs were not identified as cognates because their spelling differed too much. For instance, the English word ‘cup’ and its Dutch translation ‘kop’ were not considered cognates. In addition, some identified cognates might have been too difficult for the pupils to recognise, given their young age. For instance, the English word ‘globe’ and its Dutch translation ‘globe’ were considered full cognates. However, the Dutch word ‘globe’ is not a very common word. If pupils of that age saw a globe, they would most likely refer to it as a ‘wereldbol’, which is a more common synonym for the Dutch word ‘globe’. These limitations will have had an effect on the observed cognate effect.

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APPENDIX

School: _____

Klas : _____ Nummer : _____

Naam : _____

Geboortedatum : _____

Ik ben _____ jaar

VRAGENLIJST

Hoeveel contact heb je met het Engels?

1. Duid aan. Hoeveel minuten / uren **per dag** doe je de dingen uit de lijst:

In het ENGELS	Niet	Minder dan 30 minuten	30 minuten – 1 uur	1 uur – 1 uur 30 minuten	1 uur 30 minuten – 2 uur	Meer dan 2 uur
TV kijken zonder ondertitels						
TV kijken met Engelse ondertitels						
TV kijken met ondertitels in de moedertaal						
Luisteren naar Engelstalige muziek						
Engelse boeken, tijdschriften, strips lezen						
Gamen in het Engels						
Youtube/sociale media (in het Engels)						
Engels spreken						

- Welke games speel je? Hoe vaak?

- Youtube/sociale media: waar kijk je zoal naar? Welke sociale media gebruik je (vb. Snapchat, Instagram,...)?

In de THUISTAAL	Niet	Minder dan 30 minuten	30 minuten – 1 uur	1 uur – 1 uur 30 minuten	1 uur 30 minuten – 2 uur	Meer dan 2 uur
TV kijken						
Luisteren naar muziek						
Boeken, strips, tijdschriften, lezen						
Gamen						
Youtube/sociale media						

School: _____

Klas : _____ Nummer : _____

Naam : _____

Geboortedatum : _____

Ik ben _____ jaar

2. Heb je soms contact met mensen die Engels spreken? Ja / Neen

Zo ja, waar, wanneer en met wie?

a. Op vakantie? Ja / Neen Hoe vaak? _____

b. Thuis? Ja / Neen Hoe vaak? _____

c. In andere situaties? Ja / Neen Hoe vaak? _____

3. Spreek je zelf soms Engels? Ja / Neen

Zo ja, waar, wanneer en met wie?

4. Vind je Engels een leuke taal? Ja / Neen

5. Zoek je soms situaties op om Engels te praten? Ja / Neen

Zo ja, waar, wanneer en met wie? Zo neen, waarom niet?

Algemene informatie:

1. Welke taal spreek je meestal met je moeder? _____

Welke taal spreek je meestal met je vader? _____

Welke taal spreek je meestal met je broers/zussen? _____

Welke taal spreek je meestal met je vrienden? _____

2. Ik ben een jongen. meisje.

3. Ik heb _____ broers en _____ zussen: ze zijn _____ jaar.

School: _____

Klas : _____ Nummer : _____

Naam : _____

Geboortedatum : _____

Ik ben _____jaar

VRAGENLIJST**Hoeveel contact heb je met het Frans?**1. Duid aan. Hoeveel minuten / uren **per dag** doe je de dingen uit de lijst:

In het FRANS	Niet	Minder dan 30 minuten	30 minuten – 1 uur	1 uur – 1 uur 30 minuten	1 uur 30 minuten – 2 uur	Meer dan 2 uur
TV kijken zonder ondertitels						
TV kijken met Franse ondertitels						
TV kijken met ondertitels in de moedertaal						
Luisteren naar Franstalige muziek						
Franse boeken, tijdschriften, strips lezen						
Gamen in het Frans						
Youtube/sociale media (in het Frans)						
Frans spreken						

- Welke games speel je? Hoe vaak?

- Youtube/sociale media: waar kijk je zoal naar? Welke sociale media gebruik je (vb. Snapchat, Instagram,...)?

In de THUISTAAL	Niet	Minder dan 30 minuten	30 minuten – 1 uur	1 uur – 1 uur 30 minuten	1 uur 30 minuten – 2 uur	Meer dan 2 uur
TV kijken						
Luisteren naar muziek						
Boeken, strips, tijdschriften, lezen						
Gamen						
Youtube/sociale media						

School: _____

Klas : _____ Nummer : _____

Naam : _____

Geboortedatum : _____

Ik ben _____ jaar

2. Heb je soms contact met mensen die Frans spreken? Ja / Neen

Zo ja, waar, wanneer en met wie?

a. Op vakantie? Ja / Neen Hoe vaak? _____

b. Thuis? Ja / Neen Hoe vaak? _____

c. In andere situaties? Ja / Neen Hoe vaak? _____

3. Spreek je zelf soms Frans? Ja / Neen

Zo ja, waar, wanneer en met wie?

4. Vind je Frans een leuke taal? Ja / Neen

5. Zoek je soms situaties op om Frans te praten? Ja / Neen

Zo ja, waar, wanneer en met wie? Zo neen, waarom niet?

Algemene informatie:

1. Welke taal spreek je meestal met je moeder? _____

Welke taal spreek je meestal met je vader? _____

Welke taal spreek je meestal met je broers/zussen? _____

Welke taal spreek je meestal met je vrienden? _____

2. Ik ben een jongen. meisje.

3. Ik heb _____ broers en _____ zussen: ze zijn _____ jaar.

School: _____

Klas : _____ Nummer : _____

Naam : _____

Antwoordblad woordenschattoets EN

- | | | | | | | | | | |
|-----|---|---|---|---|-----|---|---|---|---|
| 1. | 1 | 2 | 3 | 4 | 26. | 1 | 2 | 3 | 4 |
| 2. | 1 | 2 | 3 | 4 | 27. | 1 | 2 | 3 | 4 |
| 3. | 1 | 2 | 3 | 4 | 28. | 1 | 2 | 3 | 4 |
| 4. | 1 | 2 | 3 | 4 | 29. | 1 | 2 | 3 | 4 |
| 5. | 1 | 2 | 3 | 4 | 30. | 1 | 2 | 3 | 4 |
| 6. | 1 | 2 | 3 | 4 | 31. | 1 | 2 | 3 | 4 |
| 7. | 1 | 2 | 3 | 4 | 32. | 1 | 2 | 3 | 4 |
| 8. | 1 | 2 | 3 | 4 | 33. | 1 | 2 | 3 | 4 |
| 9. | 1 | 2 | 3 | 4 | 34. | 1 | 2 | 3 | 4 |
| 10. | 1 | 2 | 3 | 4 | 35. | 1 | 2 | 3 | 4 |
| 11. | 1 | 2 | 3 | 4 | 36. | 1 | 2 | 3 | 4 |
| 12. | 1 | 2 | 3 | 4 | 37. | 1 | 2 | 3 | 4 |
| 13. | 1 | 2 | 3 | 4 | 38. | 1 | 2 | 3 | 4 |
| 14. | 1 | 2 | 3 | 4 | 39. | 1 | 2 | 3 | 4 |
| 15. | 1 | 2 | 3 | 4 | 40. | 1 | 2 | 3 | 4 |
| 16. | 1 | 2 | 3 | 4 | 41. | 1 | 2 | 3 | 4 |
| 17. | 1 | 2 | 3 | 4 | 42. | 1 | 2 | 3 | 4 |
| 18. | 1 | 2 | 3 | 4 | 43. | 1 | 2 | 3 | 4 |
| 19. | 1 | 2 | 3 | 4 | 44. | 1 | 2 | 3 | 4 |
| 20. | 1 | 2 | 3 | 4 | 45. | 1 | 2 | 3 | 4 |
| 21. | 1 | 2 | 3 | 4 | 46. | 1 | 2 | 3 | 4 |
| 22. | 1 | 2 | 3 | 4 | 47. | 1 | 2 | 3 | 4 |
| 23. | 1 | 2 | 3 | 4 | 48. | 1 | 2 | 3 | 4 |
| 24. | 1 | 2 | 3 | 4 | 49. | 1 | 2 | 3 | 4 |
| 25. | 1 | 2 | 3 | 4 | 50. | 1 | 2 | 3 | 4 |

School: _____

Klas : _____ Nummer : _____

Naam : _____

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100. 1 2 3 4

School: _____

Klas : _____ Nummer : _____

Naam : _____

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| 101. | 1 | 2 | 3 | 4 |
| 102. | 1 | 2 | 3 | 4 |
| 103. | 1 | 2 | 3 | 4 |
| 104. | 1 | 2 | 3 | 4 |
| 105. | 1 | 2 | 3 | 4 |
| 106. | 1 | 2 | 3 | 4 |
| 107. | 1 | 2 | 3 | 4 |
| 108. | 1 | 2 | 3 | 4 |
| 109. | 1 | 2 | 3 | 4 |
| 110. | 1 | 2 | 3 | 4 |
| 111. | 1 | 2 | 3 | 4 |
| 112. | 1 | 2 | 3 | 4 |
| 113. | 1 | 2 | 3 | 4 |
| 114. | 1 | 2 | 3 | 4 |
| 115. | 1 | 2 | 3 | 4 |
| 116. | 1 | 2 | 3 | 4 |
| 117. | 1 | 2 | 3 | 4 |
| 118. | 1 | 2 | 3 | 4 |
| 119. | 1 | 2 | 3 | 4 |
| 120. | 1 | 2 | 3 | 4 |

School: _____

Klas : _____ Nummer : _____

Naam : _____

Antwoordblad woordenschattoets EN

- | | | | | | | | | | |
|-----|---|---|---|---|-----|---|---|---|---|
| 1. | 1 | 2 | 3 | 4 | 26. | 1 | 2 | 3 | 4 |
| 2. | 1 | 2 | 3 | 4 | 27. | 1 | 2 | 3 | 4 |
| 3. | 1 | 2 | 3 | 4 | 28. | 1 | 2 | 3 | 4 |
| 4. | 1 | 2 | 3 | 4 | 29. | 1 | 2 | 3 | 4 |
| 5. | 1 | 2 | 3 | 4 | 30. | 1 | 2 | 3 | 4 |
| 6. | 1 | 2 | 3 | 4 | 31. | 1 | 2 | 3 | 4 |
| 7. | 1 | 2 | 3 | 4 | 32. | 1 | 2 | 3 | 4 |
| 8. | 1 | 2 | 3 | 4 | 33. | 1 | 2 | 3 | 4 |
| 9. | 1 | 2 | 3 | 4 | 34. | 1 | 2 | 3 | 4 |
| 10. | 1 | 2 | 3 | 4 | 35. | 1 | 2 | 3 | 4 |
| 11. | 1 | 2 | 3 | 4 | 36. | 1 | 2 | 3 | 4 |
| 12. | 1 | 2 | 3 | 4 | 37. | 1 | 2 | 3 | 4 |
| 13. | 1 | 2 | 3 | 4 | 38. | 1 | 2 | 3 | 4 |
| 14. | 1 | 2 | 3 | 4 | 39. | 1 | 2 | 3 | 4 |
| 15. | 1 | 2 | 3 | 4 | 40. | 1 | 2 | 3 | 4 |
| 16. | 1 | 2 | 3 | 4 | 41. | 1 | 2 | 3 | 4 |
| 17. | 1 | 2 | 3 | 4 | 42. | 1 | 2 | 3 | 4 |
| 18. | 1 | 2 | 3 | 4 | 43. | 1 | 2 | 3 | 4 |
| 19. | 1 | 2 | 3 | 4 | 44. | 1 | 2 | 3 | 4 |
| 20. | 1 | 2 | 3 | 4 | 45. | 1 | 2 | 3 | 4 |
| 21. | 1 | 2 | 3 | 4 | 46. | 1 | 2 | 3 | 4 |
| 22. | 1 | 2 | 3 | 4 | 47. | 1 | 2 | 3 | 4 |
| 23. | 1 | 2 | 3 | 4 | 48. | 1 | 2 | 3 | 4 |
| 24. | 1 | 2 | 3 | 4 | 49. | 1 | 2 | 3 | 4 |
| 25. | 1 | 2 | 3 | 4 | 50. | 1 | 2 | 3 | 4 |

School: _____

Klas : _____ Nummer : _____

Naam : _____

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98. 1 2 3 4
99. 1 2 3 4
100. 1 2 3 4

School: _____

Klas : _____ Nummer : _____

Naam : _____

101. 1 2 3 4

102. 1 2 3 4

103. 1 2 3 4

104. 1 2 3 4

Answer sheet 2. Answer sheet (form A) to the French PPVT-IV test.

PPVT-IV English form A

- A. jongen
1. **ball**
 3. spoon
 5. duck
 7. **shoe**
 9. **eating**
 11. **flower**
 13. pencil
 15. **drum**
 17. **red**
 19. carrot
 21. **toe**
 23. fly
 25. **dancing**
 27. kicking
 29. square
 31. empty
 33. fire
 35. squirrel
 37. farm
 39. gift
 41. **cobweb**
 43. juggling
 45. **net**
 47. dressing
 49. peeking
 51. **tunnel**
 53. **envelope**
 55. **calendar**
 57. sawing
- B. lachen
2. dog
 4. **foot**
 6. **banana**
 8. cup
 10. **bus**
 12. mouth
 14. **cookie**
 16. turtle
 18. jumping
 20. reading
 22. belt
 24. painting
 26. whistle
 28. **lamp**
 30. fence
 32. happy
 34. **castle**
 36. throwing
 38. **penguin**
 40. feather
 42. **elbow**
 44. **fountain**
 46. **shoulder**
 48. roof
 50. ruler
 52. branch
 54. diamond
 56. buckle
 58. **panda**

- | | |
|------------------------------|-----------------------------|
| 59. <u>vest</u> | 60. arrow |
| 61. picking | 62. target |
| 63. <u>dripping</u> | 64. knight |
| 65. <u>delivering</u> | 66. <u>cactus</u> |
| 67. dentist | 68. floating |
| 69. <u>claw</u> | 70. <u>uniform</u> |
| 71. <u>gigantic</u> | 72. furry |
| 73. <u>violin</u> | 74. <u>group</u> |
| 75. <u>globe</u> | 76. <u>vehicle</u> |
| 77. <u>chef</u> | 78. squash |
| 79. axe | 80. <u>flamingo</u> |
| 81. chimney | 82. <u>sorting</u> |
| 83. waist | 84. vegetable |
| 85. <u>hyena</u> | 86. plumber |
| 87. <u>river</u> | 88. <u>timer</u> |
| 89. catching | 90. trunk |
| 91. <u>vase</u> | 92. <u>harp</u> |
| 93. bloom | 94. horrified |
| 95. swamp | 96. <u>heart</u> |
| 97. pigeon | 98. ankle |
| 99. flamingo | 100. wrench |
| 101. <u>aquarium</u> | 102. refueling |
| 103. <u>safe</u> | 104. boulder |
| 105. <u>reptile</u> | 106. <u>canoe</u> |
| 107. <u>athlete</u> | 108. towing |
| 109. <u>luggage</u> | 110. directing |
| 111. vine | 112. <u>digital</u> |
| 113. dissecting | 114. predatory |
| 115. hydrant | 116. surprised |
| 117. <u>palm</u> | 118. <u>clarinet</u> |
| 119. <u>valley</u> | 120. <u>kiwi</u> |

Table 1. List of words on the English PPVT-IV test (including two Dutch examples A and B). The words that are underlined and in bold are the cognates identified by using the normalised Levenshtein distance for word length (Schepens et al., 2012).

PPVT-IV for French form A

A. vliegtuig

1. balai

3. **balle**

5. chandelle

7. plein

9. cou

11. **plante**

13. baleine

15. branche

17. **ambulance**

19. cerf-volant

21. barrière

23. attraper

25. verser

27. cadenas

29. trace

31. partager

33. liquide

35. **lecture**

37. coiffer

39. **rude**41. **applaudir**

43. céréale

45. médecin

47. embrasser

49. **meuble**51. **discussion**

53. musicien

55. **construction**

57. plafond

B. fietsen

2. **automobile**

4. abeille

6. argent

8. cassé

10. bouteille

12. **bureau**

14. échelle

16. **kangourou**

18. comptoir

20. cercle

22. tirer

24. chaudière

26. cueillir

28. dentiste

30. culbuter

32. arbuste

34. chenille

36. courrier

38. aigle

40. ruche

42. bijouterie

44. flotter

46. jumelles

48. selle

50. poignet

52. imprimer

54. cheville

56. salutation

58. racine

- | | |
|-------------------------------|------------------------------|
| 59. diriger | 60. illumination |
| 61. <u>paire</u> | 62. breuvage |
| 63. mâchoire | 64. laineux |
| 65. libérer | 66. dé |
| 67. ronger | 68. <u>secrétaire</u> |
| 69. <u>compétition</u> | 70. saluer |
| 71. fleuve | 72. <u>uniforme</u> |
| 73. édifice | 74. descendant |
| 75. demeure | 76. <u>artiste</u> |
| 77. portatif | 78. <u>grogner</u> |
| 79. temps | 80. cultivateur |
| 81. pièce | 82. agriculteur |
| 83. <u>composer</u> | 84. rive |
| 85. <u>solaire</u> | 86. savant |
| 87. plâtrer | 88. angle |
| 89. cubique | 90. taquin |
| 91. survoler | 92. <u>alpiniste</u> |
| 93. nutritif | 94. <u>oratoire</u> |
| 95. furieux | 96. falaise |
| 97. <u>porcelaine</u> | 98. boussole |
| 99. phare | 100. étonné |
| 101. morse | 102. triplés |
| 103. espiègle | 104. échangeur |

Table 2. List of words on the French PPVT-IV test (including two Dutch examples A and B). The words that are underlined and in bold are the cognates identified by using the normalised Levenshtein distance for word length (Schepens et al., 2012).

Geachte ouder(s)

Ik ben een masterstudente aan de Universiteit Gent die in het kader van mijn masterproef en onder leiding van Professor dr. June Eyckmans van de vakgroep Vertalen, Tolken en Communicatie onderzoek doe naar de Franse en Engelse woordenschatkennis bij kinderen uit het zesde leerjaar. Wij willen namelijk de woordenschatomvang voor Frans en Engels bij kinderen in het laatste jaar basisschool met elkaar vergelijken aan de hand van een gestandaardiseerde woordenschattoets.

De reden waarom we dit willen onderzoeken is omdat kinderen in onze huidige maatschappij al van jongs af aan in contact komen met Engels, wat heel wat minder vanzelfsprekend is voor het Frans. Dat zorgt ervoor dat kinderen vaak al heel wat kennis hebben van het Engels nog voor ze die taal op de schoolbanken aangeleerd krijgen. Wij willen nagaan of die grote blootstelling aan het Engels ervoor zorgt dat hun woordenschatkennis van die taal groter is dan die van een taal die ze wel al aangeleerd krijgen, namelijk het Frans. Om dat te bepalen zal ik een Engelse en Franse woordenschattoets afnemen bij de kinderen in de klas. Aan de hand van een korte vragenlijst ga ik ook na hoeveel uur per dag de kinderen in contact komen met Engels en Frans (hoeveel uur kijken ze Engelse tv, enz.).

De resultaten van de test zijn enkel bedoeld voor onderzoek en zullen anoniem worden verwerkt. Indien de resultaten tot een wetenschappelijke publicatie zouden leiden, dan wordt de naam van uw zoon/dochter niet vermeld en zal de vertrouwelijkheid van de gegevens in het onderzoek strikt worden gerespecteerd.

Deelname aan dit onderzoek is uiteraard geheel vrijblijvend. Mocht u nog vragen of bedenkingen hebben omtrent dit onderzoek, dan kan u ons steeds contacteren.

Gelieve het invulstrookje terug mee te geven aan uw zoon/dochter indien u GEEN toestemming geeft om uw zoon/dochter te laten deelnemen aan de test.

Hopend op uw medewerking danken wij u alvast,

Met vriendelijke groeten

Emma Boone
Master in Meertalige Communicatie UGent
e-mail: Emma.Boone@UGent.be

Professor dr. June Eyckmans
Vakgroep Vertalen, Tolken en Communicatie UGent
e-mail: June.Eyckmans@UGent.be

Ik, Mevr./Dhr., ouder van

.....
wens liever niet mee te werken aan dit onderzoek van de Universiteit Gent.

