

**Finnish Advanced EFL Learners' Comprehension of Connotations in
English**

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Connotation is a word's additional meaning or mental association and it can be perceived as positive, neutral, or negative. In the present study, connotations were looked at in terms of emotional charge, associations or connotative meanings, and overall connotational knowledge. The purpose of this thesis was to investigate the comprehension of Finnish advanced Learners on connotations in English. This was done from three perspectives. First, the approximation of Finnish learners' knowledge of connotations towards that of native speakers of English was studied. Next, the correlation between the connotation test scores and the use of English during free time was calculated. Lastly, the focus was on finding if there was a correlation between vocabulary size and connotational knowledge.

The participants (N=30) were English majors doing their MA studies at university or had recently graduated within the past five years. To gather data for the study, the participants were required to complete the following: a questionnaire concerning background information and the frequency of using English during free time, a vocabulary size test, and a connotation test. The study used mixed methods by analyzing the data quantitatively and by complementing those results through qualitative means of analyzing the responses of the participants on the tests.

The results indicate that the Finnish learners had the highest approximation in the comprehension of connotations to native speakers in terms of emotional charge. Less than half of the words in the connotation test were fully understood the same way as native speakers in terms of associations and overall connotational knowledge. The results also depict a slight negative correlation between the frequency of personal communication in English and the comprehension of the emotional charge of words. Another finding was a slight positive correlation between the comprehension of associations and the frequency of watching TV series or movies in English. A relationship was not found between overall connotational knowledge and either frequency of using English during free time or vocabulary size. Most of the results were inconclusive due to the small sample size and the ambiguousness of the instructions in the connotation test. Future research should focus on refining the connotation test.

Key words: English as a Foreign Language, connotation, vocabulary size, vocabulary depth, advanced English learners

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List of abbreviations

EFL	English as a Foreign Language
ESL	English as a Second language
L1	First Language
L2	Second Language
VKS	Vocabulary Knowledge Scale

1 Introduction

There may never be a time when one speaker understands everything the same way another speaker does, no matter how highly proficient the speakers are in the language used. The issue is not the possible unattainability of perfection, but the sense of illusion that once a speaker learns a dictionary meaning of the word, they understand the word's meaning and implications perfectly. Words have mental associations that non-native speakers may or may not pick up on. These associations may be entities that come to mind when encountering a word or it may be the sense that a word is negative, neutral or positive. These are connotations. Misunderstanding or being unaware of the connotations of a word may lead to miscommunication or even being offensive. Even if the communicative situation only consists of non-native speakers, the situation remains problematic. This is due to speakers carrying their own cultural knowledge and connotations of words that may differ from one another. The significance of investigating connotations is in raising awareness on the importance of understanding connotations in the target language and in discovering how well language learners comprehend these connotations.

Vocabulary studies in Finland has become more popular with researchers investigating even the more ephemeral areas in vocabulary, such as idioms. Connotations, however, have not been explored in vocabulary studies in Finland. There is a need for more studies on the comprehension of connotations in English at a more general level too. In other cultural contexts, studies on the comprehension of connotations in English have been quite specific and narrow in the scope of words being studied (see Liu and Zhongg 1999 and Altakhaineh and Zibin, 2014). By examining the comprehension of connotations at a more general level, a more accurate picture of a language user's knowledge in the area is depicted.

Connotations of words are built from the experiences of speakers—societally and individually—and the knowledge of the dictionary definition of the word. The cultural background information of speakers affects the comprehension of certain words. When learning a new language, there is a new set of cultural background information that needs to be acquired in order to understand the acquired words of the target language. Challenges arise when the learner applies their native language's

cultural knowledge onto the target language, when they treat synonyms interchangeably, or when they simply do not know the implications of a word. Since connotations are present in everyday language use and may differ between cultures, is it possible to acquire them by using the target language? Have advanced learners of the language acquired enough information of the words to understand the connotations of the words as closely as the native speakers of the language?

The topic of the present study is to investigate Finnish advanced learners' comprehension of connotations in English. The focus is on the depth of the Finnish learners' receptive knowledge of connotations. How well do they understand the words and their connotations and how closely does this comprehension approximate the understanding that English native speakers have of connotations? The aim is to discover if there are correlations between connotational comprehension and the advanced learners' frequency of using English during free time. The possible variables are the following: personal communication in English, reading nonfictional literature in English, reading fictional literature in English, listening to music in English, watching TV series or movies in English, playing games in English, and using a dictionary. Additionally, the possibility of a correlation between connotational knowledge and vocabulary size was investigated. The participants are English majors who are doing their MA studies or have graduated within the past five years.

The frequency of the use of English during free time is specifically looked on in the present study, due to past vocabulary studies in Finland placing much emphasis on them and sought to find correlations between vocabulary knowledge and the use of English outside of the classroom. Saarenkunnas (2006, 200) states that English language learning has shifted from formal language learning situations into informal language learning situations, in terms of the internet and games and similar activities. The frequency and exposure also play a role. A study discovered that there was a connection between large receptive vocabulary sizes and exposure to all English content (Niitemaa 2014, 191). Furthermore, as previously mentioned, connotations are based on experiences of speakers, hence in order for language learners to acquire knowledge of connotations, it would be logical that the use of language during free time would aid in this.

First, the specifications of what counts as a word is presented, along with the dimensions of vocabulary knowledge, and a more detailed description of receptive vocabulary knowledge. Next, the study will focus on describing connotations and culturally loaded words. This is followed by an examination on the types of tests measuring vocabulary size and depth. After this, the section moves onto recounting past studies on the associations of different types of use of English during free time and vocabulary knowledge. The present study is outlined and illustrated in terms of participants, methods, and procedures, followed by the presentation of the data, the discussion and analysis of the data, and finally the end remarks.

2 A word is not simply a word

Vocabulary acquisition and knowledge has been a widely studied field of research. This section is about defining what a word is, the different units of counting words, and what is involved in knowing a word. It will then move on to explaining the different dimensions of vocabulary knowledge. Lastly, there will be an overview of different receptive vocabulary studies in Finland.

2.1 Unit of counting—What counts as a word

Before describing vocabulary knowledge, one must know what counts as a word. There are various definitions for what counts as a single word unit, depending on the context and what is being measured. In vocabulary studies, there are mainly three kinds of way to form a counting unit.

One manner of categorization is according to the number of individual words in a running text. *Types* and *tokens* are usually used to measure lexical diversity in the form of type-token ratio (Kettunen 2014, 223). Number of tokens refers to the total number of word forms that are in a text, even if the same word forms are repeated (Read 2000, 18; Nation 2001, 7). Type refers to the occurrence of different word forms (*ibid.*). For example, the sentence “Cats adore cats” contains three tokens and two types.

The second manner of categorization is to form a counting unit consisting of different inflectional forms of a base word. A *lemma*, commonly used in vocabulary studies, includes a base form of a word and its inflected forms, for example “establish, establishes, established” (Read 2000, 18). Milton (2009, 11–12) considers the use of lemmas to be appropriate in studies of elementary and intermediate language learners, because the learners would be familiar with only the most common derivations and inflections.

The third type of counting unit covers more forms of a base word than a lemma does. A *word family* is a set of words, consisting of a base word, its inflections, and its derived forms (Read 2000, 18-19). The derived forms belong to different word classes of the same base word, therefore words such as “establish” and “establishment” belong to the same word family. Milton (2009, 12) believes that word families are more appropriate for advanced language learners, who are more likely to have adequate word

formation skills. Word families consist of derivations and inflections that an elementary or intermediate language learner would not know. If their size of vocabulary was estimated by using this counting unit, then the size would be an overestimation.

The reasoning for the categorization of lemmas and word families is that once a learner acquires a new word, the knowledge also includes how to conjugate the word (Nation 2001, 23-24). This is because most English words conjugate in a similar manner, and once a learner has acquired this rule of conjugation, they have a low burden of learning (ibid.). Nation and Webb (2011, 197) would use *word families* for studies on receptive vocabulary, because “word family members require little or no additional learning for listening or reading if the learner already has control of the important affixes of the language.” In other words, once a learner knows how to do the most common affixation, they do not have to learn each derived form of a base word separately. The questionability of word families and lemmas as counting units arises when it comes to irregular word formations. Words such as ‘see’ has an irregular conjugation of ‘see, saw, seen’. In terms of word families, the word also has irregular word formations: ‘a sight, see, unseen.’ Learning this word, whether it be categorized as a lemma or a word family, would require more effort than words with regular word formations.

Studies using different units of counting does not mean that there is a total lack of comparability between them; rough comparisons are possible. Milton (2009:12) has created a formula to do rough conversions between sizes of word families and lemmas: multiply the number of word families by 1.6 to get the equivalent size in terms of lemmas. Lahtikallio (2016, 11) uses this same conversion method when comparing her results to previous studies, which uses different lexical units of counting from hers.

Even though many of the researchers agree to the different ways of counting words and which items are generally included in each category, there are still differences in opinions when it comes to defining the finer parameters of what counts as a word. Daller, Milton, and Treffers-Daller (2007, 2) pointed out the issue of contractions, such as “don’t”; do they count as one or two words? Nation (2001, 7) considers that lemmas include reduced forms, such as (n’t), when they are connected to the base form. Whereas Read (2001, 18) disregards them as being a grammatical feature rather than actual vocabulary. This is because it is a word that would have little meaning

when appearing on its own. Other kinds of words with this same quality are articles, prepositions, pronouns, conjunctions, and auxiliaries (ibid.) These words are categorized as *function words* while *content words* would refer to adjectives, adverbs, nouns, and “full” verbs (ibid.). Nation and Meara (2002, 36) define multiword units as “group of words[...] which seem to be used like single words”. According to them, the defining feature of multiword units is that the words within the unit can not be replaced by other words without changing.

Another challenging issue are *homonyms*, words with the same form but unrelated meanings (Nation 2001, 49). Homonyms are further divided into *homographs*, written forms, and *homophones*, the spoken form (ibid.). “Left” can mean a direction or a past tense of the verb “to leave.” In this sense, homonyms appear problematic on whether they should be considered as one counting unit or two. According to Nation (ibid.), it should be two: “Homonyms should be counted and learned as different words, preferably at different times.”. This seems reasonable, because the homonyms belong to different word families or lemmas and are unrelated to each other in meaning. Nation (2001, 7) would also count variant spellings (program vs. programme) as belonging to the same lemma. This is understandable, because the different spelling form does not change the meaning, function, or the recognizability of the word.

As is evident in this section, setting parameters to what a word is and choosing a counting unit is not a simple task. Various forms and definitions are used for different purposes, so choosing one over another does not mean the rest are invalid. In the present study, the definition of ‘word’ will be the same as was done in a study done by Pirilä (2012) whose study will serve as a comparison point to the present study. Her definition was based on an even earlier study conducted by Jaatinen and Mankkinen (1993), which will also be another comparison for the present study. These researchers chose the counting unit to be “something between the notions of a lemma and a word family” with one word being a main entry in a dictionary (Pirilä 2012, 7). This was due to the items in their vocabulary size tests being selected from dictionaries. Like in Pirilä’s and Jaatinen and Mankkinen’s studies, compounds and phrasal verbs are counted as words in the present study. The exclusion of words in the present study was based on Pirilä’s study in which the following categories are not counted as a word: proper nouns, abbreviations, contractions, inflected forms, acronyms, and actual phrases (Pirilä 2012,

50–51). The choice of replicating the definition of a ‘word’ in both of the previous studies is to ensure that we have as similar and comparable studies as possible.

2.2 Dimensions of vocabulary knowledge

Daller, Milton and Treffers-Daller (2007, 7–9) describe vocabulary knowledge as a *lexical space* in which there are three dimensions. The first dimension, *breadth*, refers to the number of words a learner knows without regarding how well they know the words. The second dimension is *depth*, which refers to how much a learner knows about a word, which includes aspects such as concepts and referents, and associations. The last dimension, *fluency*, defines how promptly and automatically a learner uses a word and recalls the information related to its use.

In the present study, it is too broad of a research topic to study all three of these dimensions in this present study, with each of them containing various aspects that need to be measured. This study focuses on lexical depth. How well do the learners comprehend the words? Lexical depth contains many facets that can be studied and testing all of them may be at the expense of the number of words in the actual test. I will also include lexical breadth, the number of words a learner knows, as a variable in my study since it is closely tied to lexical depth. The semantic and word associations are the most interesting dimensions, which I will focus on.

In vocabulary studies, the terms *receptive* and *productive* vocabulary are widely used. Nation (2001, 24-25) describes receptive vocabulary as being aware of a word form while reading or listening to it and recalling its meaning. Whereas productive vocabulary is about expressing meaning in speech or writing and is also about recalling and producing suitable written and spoken language (ibid.). In other words, receptive vocabulary is associated with comprehension in terms of reading and listening, while productive vocabulary is associated with producing language in terms of speech and writing.

In Table 1, Nation (2001, 27) believes that there are three aspects to knowing a word: *form*, *meaning*, and *use*. These categories are further divided into subcategories, which represent the different dimensions of the aspect in question. Every item in the table is marked as either R or P, which respectively represent receptive and productive

knowledge. Because the research topic is about comprehensive knowledge, the present study naturally only concerns the receptive knowledge items.

Table 1 What is involved in knowing a word (Nation 2001, 27)

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 the meaning?
Meaning	Form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	Concept and referents	R	What is included in the concept?
		P	What items can the concept refer to?
	Associations	R	What other words does this 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 (register, frequency...)	R	Where, when, and how often would we expect to meet this word?
		P	Where, when, and how often can we use this word?

Note: In column 3, R=receptive knowledge, Productive knowledge.

The present study focuses only on some items and aspects listed in Nation’s table. For vocabulary depth, it is the category “meaning” with the subcategories: associations (What other words does this make us think of?) as well as concepts and referents (What is included in the concept?). For vocabulary size, it is the written form (What does the word look like?) and form and meaning (What meaning does this word form signal?).

2.3 Receptive vocabulary knowledge

Receptive vocabulary, as mentioned in the previous section, is about listening or reading words while recalling the meaning. Most receptive vocabulary studies in

Finland involve students from junior high, upper secondary school, and university (see Ala-Akkala 2010, Jaatinen and Mankkinen 1993, Lahtikallio 2016, Maakkonen 2008, Merikivi and Pietilä 2014, Piri 2012, Viinikkala 2007). Few of these studies measure the depth of vocabulary. There have also been several studies comparing the receptive vocabulary of students whose language of instruction or major is English and those whose is not (see Maakkonen 2008, Merikivi and Pietilä 2014, Viinikkala 2007).

Vocabulary size has been noted to have a high positive correlation with vocabulary depth (Harkio and Pietilä 2016, Qian 1999). In Harkio and Pietilä's study (2016, 1086) there was also a positive correlation between reading comprehension and vocabulary depth. The study also found that advanced learners had success in reading comprehension regardless of the level of their vocabulary knowledge (Harkio and Pietilä 2016, 1087). It was also suggested that this was likely due to advanced learners being equipped with "a wide range of other skills, such as the use of other linguistic knowledge or reading strategies, which they can resort to when encountering problems in reading" (ibid.).

What is the breadth of vocabulary that advanced non-native speakers of English are expected to have? Educated English native speakers are estimated to know approximately 20,000 word families (Goulden, Nation and Read 1990). According to Nation (2001, 9), the number was underestimated because of derived forms and proper nouns being excluded from the count. Nation (ibid.) also provided a rough estimation of a native speaker's rate of acquiring new words: every year during their early life, they obtain on average 1,000 word families. A more recent estimation was made that "an average 20-year-old native speaker of American English knows 42,000 lemmas and 4,200 non-transparent multiword expressions, derived from 11,100 word families" (Brysbaert et al. 2016). Nation's (2001) estimation falls between the 42,000 lemmas and 11,100 word families that Brysbaert et al. (2016) had configured. The latter party of researchers stated that this difference is due to the different criteria of counting words. Brysbaert et al. (2016) also estimated that the range of native speaker vocabulary size is 27,000 to 52,000 lemmas. They also believe that an average person acquires 6,000 additional lemmas from age 20 to 60, which would be approximately one lemma every two days (ibid.). What can be concluded is that researchers believe that acquiring new vocabulary does not stop at a certain age, but continues growing as one ages.

Lahtikallio (2016) conducted a study on Finnish EFL (English as Foreign Language) learners concerning their size and depth of receptive vocabulary knowledge. The participants of her research were 9th graders and upper secondary school students. Students from both groups had a higher than expected language competence level regarding vocabulary size, surpassing even the estimation of the national core curriculum. The 9th graders had a faster learning pace of vocabulary while the older students had a larger vocabulary size. Another finding of this research was that in comparison to a study conducted 30 years ago on Finnish students by Takala (1984), the average vocabulary size has increased significantly among 9th graders from 2,200 to 3,600 words (Lahtikallio, 2016, 54). The study also found a strong positive correlation between the size and depth of vocabulary.

An increase in vocabulary size has also been noted in university students as well. In Makkonen's study (2008), university students studying English had a broader vocabulary than the university students studying English in Jaatinen and Mankkinen's (1993) study. The average size of receptive vocabulary was larger in the former study in comparison to the latter study where it was only 18 100 words (Makkonen 2008, Jaatinen and Mankkinen (1993, 147). Another researcher, Pirilä (2012) also found an increase in vocabulary size when comparing it to Jaatinen and Mankkinen's study. Her study was specifically focused on academic vocabulary knowledge, in terms of size and knowledge. Her participants were 1st year university students and MA students of English. The study found that the students had on average a vocabulary size of 22 000 words: first year students had on average a vocabulary size of 21 100 words while for advanced students it was 23 200 words (Pirilä 2012, 91). In Jaatinen and Mankkinen's study (1993, 147) the breakdown was 17 100 words for first year students and 19 500 words for advanced students.

3 Connotations

In this section, I will explore the different types of meanings of a word, specifically connotations. Then I will move on to discuss the challenges of culturally loaded words for non-native speakers.

3.1 What is the meaning of a word?

What is the meaning of a word? It is not simply a definition found in a dictionary. The meaning of a word is divided into a *denotation* and a *connotation*. The denotation of a word identifies what the word refers to (Bieswanger and Becker 2008, 146). For example, the word “sun” stands for the star at the center of the solar system that exudes heat and light and is orbited by planets. The term connotation is not as easily defined. Bieswanger and Becker (2008, 146) view connotations as associations invoked by a word. They use as an example the word *winter* with the mental associations of cold, snow, and skiing, for example. For Milton (2009, 14, 242, 247) a connotation is a secondary meaning to a word, or it is the positive or negative feeling invoked by the word. In the present study, connotation will be used to refer to the associations and feelings feelings, or emotional charge, that come to mind when thinking of a word.

Hayakawa explains that expressing the denotation of a word cannot be done without the actual subject matter being present (Hayakawa 1972, 52–53). In other words, one cannot truly tell what the denotation of the word “chicken” is unless there is an actual chicken to point at. However, the *referent* of the word, what the word refers to, can be described. It is also possible for words to have definitions but no denotations, such as “dragon,” which is a fictional being (Hayakawa 1972, 63-64). Nation (2001, 49-52) speaks of *concepts* and *referents*: the former being the underlying commonality in meaning that runs through a group of forms, and the latter being the actual entity that is being referred to. Nation (ibid) provided the example of the word “fork,” which can refer to an eating utensil or a split in a road. The underlying concept of both these words is the actual shape of the referent. Ruhl (1989, 33, 83, 234) views that a word should not be seen as having multiple different meanings as seen in a dictionary entry for a word, but rather as a word having an *inherent lexical meaning*, which is the meaning it has when it appears alone (ibid.). We understand a word in context in two different manners: 1) its inherent lexical meaning, and 2) its *inferential meaning*, which is the

meaning we infer based on our world knowledge and the other words that appear around the word (ibid.).

Hayakawa (1972, 63) further divides connotations into two categories. The first category, *informative connotations*, refers to multiple other words being used to describe the actual word in question. Informative connotations are socially agreed upon and do not involve personal feelings. The informative connotations of “chicken” are: a domestic farm bird usually raised for its meat and eggs.” However, Hayakawa (1972, 64) points out that informative connotations may differ depending on place and individuals. “Chips” in the United States refers to flat, crispy, potato snacks, while in the United Kingdom it refers to fried potato sticks. The second category is *affective connotations*, which refer to the feelings being invoked by a word (Hayakawa 1972, 64–65). For example, “chicken” has an affective connotation of being cowardly.

Connotations are not static. It is possible for a word to have a shift in connotation or for a connotation to even disappear (Magdalena and Mülhäusler 2007, 285, 291). The cultural context is another factor that should be considered. Connotations of a word are not necessarily same even in all English-speaking countries (see Peeters 2007, 89–90). A connotation is formed based on the knowledge of its denotation and “experiences, beliefs, and prejudices about the contexts in which the expression is typically used” (Allan 2001, 91). So, while in general people agree on denotations, connotations may differ according to the experiences of individuals (Kreidler 1998, 45). However, due to people having common experiences, the connotations of some words are the same as a result (ibid.).

Researchers have divided the emotional charge of connotations into three categories when conducting their studies: negative, neutral, and positive (see Corrigan 2004, Çepik 2006, and Chen and Shan 2015). The terms are self-explanatory; they each stand for the type of feelings that are invoked by a word. These feelings can be so potent, that connotations may affect how people even perceive the referent of the word in question. For example, in Australia, there has been a suggestion to rename rats, a term which has a negative connotation, in hopes of people having a more positive view of these animals (Magdalena and Mülhäusler 2007, 280).

Nation (2001, 52) uses the terms *concept* and *associations* instead of denotation and connotation respectively. The meaning of connotation differs also slightly for

researchers, depending on the field of their research: logic and reasoning, discourse, literature, and semantics. Jeffries (2006, 178) and Murphy (2010, 33) are aware of this multisectionality with Jeffries, as a result, defining the term connotation he will be using slightly differently from other researchers and Murphy cautioning readers with its use since the term does not mean the same for everyone in everyday life and in academic circles. In non-academic circles, connotations are understood better to be related to the secondary meaning or associations of a word. Even many academic textbooks on linguistics use the terms connotations and denotations with those concepts (see Kreidler 1998; Finegan 2004; Lesley 2006; Bieswanger and Becker 2008; Plag, Ingo, Maria Braun, Sabine Lappe, and Mareile Schramm 2009, Penhallurick 2010). Furthermore, these words were the original terms in the academic circles (see Hayakawa 1972, Lado 1972). There are still researchers in vocabulary studies who do use the term connotations (see Liu and Zhongg 1999, Milton 2009). Therefore, the term connotation will be used in the present study.

3.2 Culturally loaded words

Cultural background information does have an impact on the comprehension of certain words. The problems arise when a language learner applies their own L1 cultural knowledge to that of the target language's or when the learner does not notice a cultural load of a word. There may be cases in which the language learner uses synonyms of a word interchangeably, believing that it is the same either way. Finegan (2004, 192) notes that "[i]n fact, there are very few true synonyms in the lexicon. More often than not, terms that appear synonymous have different social and affective connotations." This type of overlook may create misunderstandings or miscommunication.

Researchers are also aware of the differences in understanding words with cultural connotations and find it an issue that needs to be taught to language learners. For example, Chen and Zhao (2016) addresses issues of cultural connotations between Chinese and English and implore for this knowledge to be more integrated into language teaching. For Nation (2001, 51), the meaning of a word often contains a cultural aspect which he wishes language teachers would emphasize and describe more. Deghani (2009) also noted that culturally loaded words and phrases are difficult and

challenging to translate if there is no cultural equivalent in the target language with the possible pitfall being a literal translation, which would lead to an inappropriate use of the words or phrases. Milton (2009, 15) and Kramsch (1998, 3) caution about communication with speakers of other languages, because what is considered appropriate in one culture may be offensive in another, or the miscommunication could lead to confusion. Liu and Zhongg (1999, 178) go as far as stating that “[f]or ESL/EFL students to miss the cultural connotations of these words could easily cause serious problems in their communication with native speakers.” Therefore, misunderstanding or not noticing the cultural dimension of a word in the target language may lead to miscommunication in terms of intention and may even be offensive. This would also be a problematic situation even if all of the speakers in a communicative situation are nonnative speakers, because the speakers carry with them their own cultural knowledge which may differ from one another.

Connotations differ throughout cultures. In Chinese, “old” has a positive or a neutral connotation, while in English it is quite negative (Liu and Zhongg 1999, 178). Therefore, Liu and Zhongg (ibid.) believe that it is important to understand the cultural aspect of a word, even though it is a challenging area of vocabulary knowledge. It is not only the negative or positive perceptions of a word that differ but also the different associations attached to the word. Altakhaineh and Zibin (2014, 2) use the example of ‘owl,’ which carries a positive connotation in the Western culture and is associated with wisdom and knowledge, while in the Arab culture ‘owl’ carries a negative connotation and are connected to misfortune and death.

In terms of culturally loaded words, Finnish studies have touched on the subject matter by writing about NNS (non-native speakers) comprehension of English idioms but not on individual words (see Mäntylä 2004, Kainulainen 2006, Majuri 2014). Whereas, there have been several international studies on the comprehension of non-native English speakers on culturally loaded words.

Altakhaineh and Zibin’s (2014) study was on the Arab EFL (English as a foreign language) students’ comprehension of culturally loaded words in English in comparison to native English speakers. The study uses a 5-point scale for the participants to use in determining the appropriateness of a word in a certain context (Altakhaineh and Zibin, 2014, 4). In the test, there is a short conversation and an underlined word. The test

participant would have to rate the appropriateness of the underlined word in the context it appears in. The study concluded that the advanced and intermediate language learners of English did not have a sufficient understanding of culturally loaded words. These learners transferred their L1 knowledge of connotations and culture into the target language. The reliability and the validity of the test conducted by Altakhaineh and Zibin is questionable, because of the low number of participants (10 native English speakers and 20 non-native English speakers) and the low number of test items (7 vocabulary items). Due to this, the results are only indicative. However, the researchers did believe in the importance of learners understanding connotations in English (Altakhaineh and Zibin 2014, 9). Therefore, even though there was a limited number of participants, the findings were significant in that there were actual differences in the comprehension of culturally loaded words.

Liu and Zhongg (1999) also studied EFL students' comprehension of culturally loaded words in comparison to English native speakers and the effect on it by their English proficiency level. The participants were asked to rate the appropriateness of the words in the sentence they appear in. Liu and Zhongg's (1999) pilot study involved 125 EFL students and 61 native speakers, but the number of test items was only 10 words. The study concluded that NNS' comprehension of most words differed significantly from that of NS. Even though there was some approximation towards NS comprehension, it was at an inadequate stage.

A study on university students who were French-German bilinguals suggests that the intensity of using the L2 language, or second language, helps predict whether the bilinguals sense the affective connotations of L2 words (Degner 2012). Degner (2012, 181) discusses that even bilinguals with high proficiency have stated that their L2 language is less emotional compared to their L1. These bilinguals were also aware of the emotional meanings of the L2 words, but they did not sense it as intensely as the equivalent L1 words. Another example of this emotional distance is in these bilinguals' report in feeling more comfortable in using swear words or taboo words in their L2 whereas they felt more shame of doing so in their L1 (ibid.). In Degner's (2012, 188) words, "[f]or example, in cross-cultural interactions, misunderstandings might be partly explained in relation to language emotionality if one or both interaction partners are not frequently using their second language." This finding demonstrates that even highly

proficient language learners do not experience emotional charge of words similarly than they would in their native language.

The studies on culturally loaded words (Liu and Zhong 1999, Altakhaineh and Zibin, 2014) have purposely selected test items, culturally loaded words, that the researchers believed to have most significant differences in connotational meaning between the native language and target language. This may skew the results, but the significance of the study is that there are words that are culturally loaded and not understood, perhaps even misunderstood, the same way by native and non-native speakers. In the present study, I will have a larger number of test items, which will be selected from a list of 149 words that I have not compiled myself. I will also not use the test format of the researchers mentioned above, because it only measures the appropriateness of a word in the context it appears in.

4 Measuring receptive vocabulary knowledge

There are many different tests for measuring vocabulary knowledge and as of yet there is no single test in the academic field that measures all aspects of vocabulary knowledge. Therefore, most vocabulary tests are divided into tests that measure how many words a person knows (i.e. vocabulary size) and tests that measure how well they know a word (i.e. vocabulary depth). However, even then the test developer has had to choose which further aspects the tests will focus on: for example, should a person's knowledge of a word be based on them recognizing what the word sounds like or looks like? First, the different options for measuring vocabulary size will be described. After that, there will be a list of different vocabulary depth tests and how connotations and some similar elements have been tested.

4.1 Vocabulary size tests

Vocabulary size tests are meant to measure how many words a person knows. As discussed in a previous section, there are many ways to determine this. It may be defined as simply recognizing how a word looks or sounds like or it may be defined as being able to use the word in the correct context and grammatical construction. It is therefore important to notify the participants taking a test what the definition of knowing a word is.

There have been various tests to measure the size of one's vocabulary knowledge. For the purpose of measuring the vocabulary size in the present study, Meara's Yes/No test (1992) was chosen. In the test, there is a list of words which the test taker has to mark whether they know the word or not.

There has been some question about the face validity of the test; it does not look like a test that is testing vocabulary knowledge (Nation and Webb 2011, 295-296). This is because the test taker only needs to indicate whether they know the word item or not, thus the results of the test rely on the test taker's integrity and self-assessment. In other words, the test taker does not prove that they actually do know a specific word. This is something that has been acknowledged by other researchers as well. The negative consequences of this possible threat to its face validity are: 1) the results of the test not being accepted by those who think the test does not look like it should and 2) the test takers not taking it seriously when doing it (ibid.).

Some researchers may choose a different test purely based on face validity but not on any other aspect of reliability, validity, or practicality (Nation and Webb 2011, 296). Nation and Webb (2011, 296) would recommend the Yes/No test format if face validity is not important and maintain that “they can be excellent tests that meet all critical requirements of a good vocabulary test as well as any other well-developed vocabulary test” (ibid.). Face validity was determined to not be a major drawback in the present study for the following reasons. Finnish studies have used Yes/No test formats and other studies have referred back to the results of these studies (see Ala-Akkala 2010, Pirilä 2012). As for the risk of test takers not taking the test seriously, through interacting with participants, it appears that their responses and approach to answering the test were taken seriously. This would mitigate the threat to face validity.

This format of test was used in the present study due to it having been used in prior Finnish studies on vocabulary and the simplicity and time-saving solution in measuring vocabulary size. Even though the test relies on the test taker’s honesty and self-assessment, it has been perceived in the academic circles as a proficient and justifiable test in measuring vocabulary size.

4.2 Vocabulary depth tests and connotation testing

There are no well-established tests on measuring connotational knowledge in a general manner and combining it with knowledge of vocabulary depth. In this subsection, the measuring of vocabulary depth will first be introduced and then the different ways of measuring connotational knowledge.

As is with measuring vocabulary size, there are various different tests to measure vocabulary depth as well. One of the vocabulary depth tests is John Read’s Word Associates test (1993, 1998). Nation and Webb (2011, 227) acknowledge the test as the “best-known measure of depth”. The Word Associates test measures three aspects of receptive vocabulary knowledge in terms of 1) form and meaning, 2) concept and referents, and 3) collocation.

The Word Associates test has 40 words being tested that appear alone without context. Underneath the word are two boxes with options of other words that may be related to the said word. The test taker is meant to mark four words that are related to the word that is being tested. The layout of the test is meant to minimize the risk of the

test taker to guess correctly: each of the two boxes have four options and the number of correct ones in each box varies among the test items (*ibid.*). As impressive as the Word Associates test is, in its present form it does not function as a test to measure knowledge of connotations.

Another test for measuring the depth of vocabulary knowledge is Paribakht and Wesche's (1993) Vocabulary Knowledge Scale (VKS). This test has a self-reporting scale with the test takers having to evaluate their knowledge of each word by choosing one of the five categories, which range from never seeing the word to knowing how to use the word. If the test taker chooses the last category, they will have to demonstrate their knowledge by using the word in a sentence (Nation and Webb 2011: 228-229). The structure of the test does not allow for the needed modifications in the present study, which are the evaluation of the knowledge of associations and emotional charge. Because the test is based on the test taker's own evaluation, much like the vocabulary size test presented in section 4.1, it is not possible to see what the approximation of the test taker's knowledge is to that of native speakers. Therefore, other possibilities for testing connotations must be explored.

Using existing connotation tests is not as straightforward as it appears. The connotation tests of Liu and Zhong (1999) and Altakhaineh and Zibin, (2014) respectively are quite narrow and specific in what test items they measure. Both studies also have a different approach in analyzing the connotational knowledge of learners. In both tests, the test takers had to rate the level of appropriateness of a word that appears in a certain context, for Liu and Zhong (1999) the words were placed in sentences and for Altakhainer and Zibin (2014) the words were placed in a dialogue. Both tests also only measured less than 10 items, whereas the present study aims to study the comprehension of connotations in a more general manner.

In idiom studies, multiple-choice tests were used with the idiom appearing in context or without and several meaning options presented beneath it (see Mäntylä 2004, Kainulainen 2006, Majuri 2014). This is related to measuring connotations, because both connotations and idioms are ephemeral and rely on the knowledge outside of the word's denotational meaning. The tests used in idiom studies place more importance on the learner knowledge of specific idioms and the researchers list out the idioms in their data and analysis section. In vocabulary studies, knowledge of specific words is not

listed or analyzed; the focus is placed on a more general level of knowledge of vocabulary as a whole. The purpose of the present study is to investigate knowledge of connotations in general and not specific words; therefore the approach of idiom studies is not suited in answering the needed research questions.

While there are various ways of possibly measuring connotations, many of the tests do not fit the parameters set in the present study or are too specific to measure what is needed. The Word's Associates test sets a more general frame for measuring word knowledge by being able to measure more than one aspect of a word. Thus, it will serve well as a base for measuring connotations. The present study uses a connotation test that is based on the Word Associates test. Further details on this will be discussed in section 6.2.2.

5 Frequency of using English during free time

Many vocabulary studies are focused on the relationships between two or more of the following categories: vocabulary depth, vocabulary size, and background variables. Studies in Finland have found a correlation between vocabulary size test scores and interests and activities during free time. These studies and their findings will be further described in this section. As demonstrated by the following quotation, exposure to English in an informal setting has become more prominent in terms of learning the language. “At least in the case of the English language, learning has increasingly moved from official (e.g. school) to various informal sites of learning that involve the Internet, TV and computer games, for example” (Saarenkunnas 2006, 200). The frequency and amount of exposure, however, also plays a role. A study by Niitemaa (2014, 191) concluded that daily exposure to all English content had a connection to larger receptive vocabulary sizes.

The correlation between reading and vocabulary size is a well-researched area. In many studies, reading also has one of the highest positive correlations with receptive vocabulary test scores (see studies below). In other words, the more you read, the bigger the vocabulary size. On the other hand, Jaatinen and Mankkinen (1993, 180) did not find a correlation between reading and vocabulary test scores.

One Finnish study found that students who read English texts during their free time also had a broader vocabulary than those who did not (Pietilä and Merikivi 2014, 33). Furthermore, the frequency of reading English texts also had an effect on the vocabulary size scores: those who read daily had the highest scores, which were distinct from the scores of those who read on a weekly or a monthly basis (ibid.). As was in the case of Pietilä and Merikivi’s study, Pirilä (2012) also discovered that the frequency of reading correlated with the vocabulary knowledge. Students who read non-fiction every day knew on average 2,000-3,000 words more than students who read them less frequently (Pirilä 2012, 96). In Pirilä’s study (2012, 96), the participants themselves also believed that reading was very useful when it came to learning vocabulary. In fact, reading also had the highest correlation with vocabulary size.

Communication can be divided into written or spoken communication. Finnish studies in the past have focused on personal communication as a variable when it comes to vocabulary knowledge. One of the findings is that speaking or writing in English has

had a low correlation with vocabulary test scores (Jaatinen and Mankkinen 1993, 171; Pirilä 2012, 98). However, there has been an interesting finding in terms of there being an increasing frequency in communicating in English as compared to decades prior.

Pirilä's (2012, 96) and Makkonen's (2008) studies have found that there has been an increase in the use of English in at least reading and communication when comparing their results to those of a study done 20 years prior by Jaatinen and Mankkinen (1993). Pirilä (2012) also believed it to be a possible explanation of the increase in vocabulary size of university students of English in Finland over the past decades. Pirilä (2012, 98) specifically found there to be an increase of 54% in English communication happening every day or a few times a week, though she noted that the correlation between communication and test scores was low. She explained that this may be due to the communication being informal and using everyday vocabulary, which does not necessarily prove beneficial in improving an advanced learner's vocabulary (Pirilä 2012, 97). She also noted that her study did not test for productive vocabulary knowledge, inferring that the frequency of communication would be potentially more beneficial for increasing one's productive vocabulary knowledge (*ibid.*)

Watching TV series and films in English has, according to some studies, a relationship with vocabulary test scores. Pirilä (2012, 98) had separate categories for watching English films and TV series with Finnish subtitles and without Finnish subtitles. She discovered that vocabulary size scores had a negative correlation when it came to the use of Finnish subtitles, whereas there was a slight positive correlation when watching without the Finnish subtitles.

In the studies described in this subsection, playing games in English has been viewed as consisting of at least console games, computer games, and boardgames. In the recent years, Finnish studies on playing specifically video games or console games and its relationship with competency in English has gained popularity.

One study found a moderately positive correlation between the frequency of playing computer or console games and vocabulary test scores (Pirilä 2012, 97). The same study also found that those who played games at least a few times a month had on average 2,000–3,000 words larger vocabulary sizes than those who played less frequently.

Playing computer games has been found to be related to language learning (Uuskoski 2011, Sundqvist and Sylvén 2012). However, in their study of learners playing in immersive and online multiplayer games, Sundqvist and Sylvén (2012, 204) found that weak learners of English “are not involved in gaming at all”. Uuskoki’s study on upper secondary school students in Finland (Uusikoski 2011, 56) found a statistically significant correlation between playing a lot of video games and high grades in English and even the gamers themselves believed that the activity helped improve their English skills. Uusikoski concluded that other factors, such as interest in languages, general academic success, socio-economic status, or ties to English speaking countries or people (ibid.). Furthermore, he discovered that the other variables that had a correlation with high English grades also had a correlation with the amount of time playing video games and that playing video games was the best factor in predicting the grades.

One Finnish qualitative study by Saarenkunnas (2006) was centered on a 10-year-old boy and his use of English in playing an online game with only having formally studied English for 1.5 years. In deciphering the meaning of an unknown word in the game, the following aids were used by the boy: the use of an electronic dictionary, collaboration with other online players, and visual images which facilitated guessing from the context (Saarenkunnas 2006, 210). While the subject is a novice English learner and a child compared to the participants being studied in the present study, the findings are relevant in that online games has been found to be a fruitful environment in acquiring words and deciphering their meanings.

The use of dictionaries has been one variable when studying correlations with vocabulary test scores. One finding was that when coming across unfamiliar words in a text, many university students of English would check the definition from a dictionary (Pirilä 2012, 96). Jaatinen and Mankkinen (1993, 172) discovered that the use of monolingual and bilingual dictionaries had quite high correlations with vocabulary test scores, though it wasn’t a significant one for the use of monolingual dictionaries. During the test taking, Niitemaa (2014, 187) noted that the participants had tendencies to look up a word from the same dictionary, choose the first definition in the list of entries, and not cross-check the word. Advanced learners are able to find target words when searching for them even though they do not prefer to use the dictionary whereas weaker learners consult the dictionary more often, though it is not very beneficial for

them due to their “poor lexical skills” (Niitemaa and Pietilä 2018, 454). The frequency of searching up words does not have a linear relationship with the number of correct answers (Atkins and Varantola 1998, Pelttari and Mutta 2014).

Since listening to music has been used as a variable in Finnish vocabulary studies, it is an element that will be considered in the present study as well. Collister and Huron (2008, 120) discovered that song lyrics are often difficult to decipher. In fact, in their study there were seven times more mishearings of lyrics being sung in comparison to mishearings in spoken passages. However, Collister and Huron suggest that listeners of music may benefit from repetitive listening and contextual cues in understanding the content of the songs (*ibid.*). The results of this study appear not to be a very conducive manner of acquiring vocabulary, which is supported by Niitema’s study (2014). In her study, Niitemaa (2014, 189) found no connection with the receptive vocabulary size and the amount of listening to music. She believes that watching movies and TV series or playing digital games require more from “the learner’s cognitive abilities in terms of attention management, memory load and comprehension skills, whereas listening to music and song lyrics [...] included less exposure and less cognitive activity” (Niitemaa 2014, 190). She therefore tentatively suggests that the combination of frequent exposure and cognitive ability encourages skills in recognizing vocabulary.

6 The present study

The aim of the present study is to answer the following questions:

1. Does the Finnish advanced EFL learners' comprehension of connotations in terms of emotions and additional meanings or nuances approximate that of native speakers?
2. Is there a connection between connotation comprehension and the use of English during free time?
3. What is the relationship between vocabulary size and the comprehension of connotations?

The first research question will be analyzed by using the descriptive data of the connotation test scores. For that purpose, the following categories will be looked at: emotional charge of words (positive, neutral, or negative), associations of words, and the connotation in its entirety (emotional charge and associations). To find an answer for the second research question, statistical methods will be used to find if there is an association between connotation test scores and the questionnaire answers about the frequency of using English during free time. In the third research question, the approach would be to find if there is a positive correlation between the scores of the vocabulary size test and the connotation test.

This section will describe the present study. First, the participants will be detailed. Then, the type of testing and how it was conducted will be depicted. This subsection will go into further detail into how the vocabulary tests and questionnaire were modified and adapted for the present study. It will also describe the assessment of the test answers. Lastly, this section will briefly mention the statistical analysis procedure.

6.1 Participants

The participants are English majors whose first language is Finnish and who are either doing their master's degree or have graduated within the past 5 years. The participants came from three different universities in Finland. These participants were a sampling of

a larger community of English majors in Finland, so the total number of participants is 30 and the range of age is from age 23 to 33 (mean=27). The sex of the participants was skewed more towards women, because most of the English majors in Finnish universities are women (8 males to 22 females). In regards of the current status of the participants, 56.7% (17) of them are students, 36.7% (11) employed, and 6.7% (2) are categorized as other.

The participants were volunteers who consented to participate in the present study and had a choice in not completing the tests if they so wished. The tests were also done to maintain as much of the anonymity of the participants as possible. Even though many of the tests were sent from personal email addresses, the tests were gathered into a separate folder and all possible identifiable writings, such as first names, were removed. The tests were then later evaluated at a separate time to ensure the evaluator could not connect a person to a certain test.

6.2 Methods and procedures

In this section, I will describe the tests and questionnaire and how I plan to analyze the data. Two vocabulary tests were used to measure the vocabulary knowledge of the participants, the first one being a vocabulary size test and the second one being the connotation test (see Appendices 3–6). I also included a questionnaire to find out about the participants' frequency of using English and any other relevant background information (see Appendices 1–2). Because English is not the mother tongue of the participants, I conducted all of the tests and the questionnaire in Finnish. This was to ensure complete comprehension of the instructions and to hasten the process of completing the tests and the questionnaire.

The tests and questionnaire were sent in the format of Word documents via email and a post on a Facebook group page. The purpose of the study was explained in the beginning of the document. The participants were allowed to have a break between the vocabulary size test and the connotation test, because of the demanding nature of the tests. Due to the tests being conducted online, there was a possibility that the participants checked the meaning of the words, however they were discouraged from doing so in the instructions.

The two vocabulary tests and questionnaire have been piloted with three participants. The ages of the participants were 20, 28, and 61. One of them was a native English speaker and two of them were native Finnish speakers. Due to the findings in the pilot, some changes were made.

The program used to analyze the data was SPSS Statistics 25. To find out the approximation of the connotation knowledge of Finnish learners towards that of native speakers, descriptive analysis was used. In answering the second research question of finding if there is a correlation or not between the use of English and connotation knowledge, the dependent variable was the connotation score and the independent variables were the frequency of different types of use of English. Ordinal data are more fitted to be measured by non-parametric tests (Dörnyei 2007, 227). Therefore, due to the independent variables being ordinal, the non-parametric test Spearman's rho, or Spearman's Rank Order Correlation, was chosen. The correlation of Spearman's Rho is calculated according to the rank order of the data instead of actual values as is done in Pearson correlation, a parametric test (Dörnyei 2007, 230). The third research question was The Shapiro-Wilk test was used to test if the data had a normal distribution or not. The data did not meet the assumptions for a parametric test; therefore, the non-parametric test Spearman's rho was used to test for correlation between the variables (Larson-Hall 2010, 160-161).

In the second and third research question, the significance level was set at 0.05 with the P-value having to be less than that. The strength of the relationship, or effect size, was calculated in the following manner $<+/-0.1$ indicating a weak relationship, $<+/-0.3$ indicating a modest relationship, $<+/-0.5$ indicating a moderate relationship, $<+/-0.8$ indicating a strong relationship, and $<=+/-0.8$ indicating a very strong relationship (Muijs 2011, 126). Next, the different types of tests and questionnaire used in the present study will be described and their procedures explained.

6.2.1 Vocabulary size test

To measure the size of the vocabulary of the participants, I used Piriälä's (2012) vocabulary size test that used the format of Meara's (1992) Yes/No test, which has also been used by other Finnish studies on English vocabulary knowledge (see Ala-Akkala 2010, Kaisa-Lotta Leppänen 2018). Piriälä (2012, 49) herself replicated the study from

other vocabulary researchers in Finland Jaatinen and Mankkinen and Takala. The items in the test were chosen from *Collins COBUILD dictionary for Advanced Learners* published in 2001 (Pirilä 2012, 52). The test used in the present study includes 149 of words. The estimation of the vocabulary size is done based on the number of words a test taker knows in the test. The ratio of known to unknown words in the test is generalized to be equivalent to known words in the dictionary or in general. In Pirilä's (2012, 49) words, "if a test-taker scores 50% correct in the test, it is inferred that she knows approximately 50% of the words in the whole dictionary".

The vocabulary size was counted the same as in Pirilä's (2012) study. She had replicated her counting method on that of Jaatinen and Mankkinen's study. To estimate the size of the vocabulary knowledge, the word population of the dictionary, which in this case is 31,829, is multiplied by the percentage of correct answers in the vocabulary size test (Pirilä 2012, 51-52). This calculation is based on the assumption that the percentage of known words in a vocabulary size test has the same proportionality as known words in the dictionary. For example, if the test taker knows 70% of the vocabulary size test's words, then the calculation is $31,829 \times 0.70 = 22,280$. In other words, the test taker's vocabulary size is 22,280 words.

There were deliberate decisions made when it came to modifying or retaining some mistakes of the vocabulary size test. While the original test in Pirilä's study was supposed to include 150 words, the researcher had forgotten to include one word. This study aims to replicate her study as much as possible in order to get a better comparability between the studies. On the other hand, the layout of the test was modified, though it should not affect the results of the test. The test used in the present study only required that the test taker mark the words they knew, while the original test required them to mark "yes" if they knew the word and "no" if they did not. The purpose of this modification was to speed up the test taking process. The decision to forego the option to mark words that the test taker did not know was also partly affected by the online format of the test. Lahtikallio (2016) also used a Yes/No test format with the instruction being to tick the words you do know and leave the rest blank. Furthermore, the online version of Meara's (1992) Yes/No on the Lextutor online tool website only has the option of ticking a box if the test taker knows the tested word or to not tick the box if they do not know the word (Cobb 2013).

In the pilot that was conducted, there was a discrepancy between what words the participant thought they knew and what they *actually* knew. After they had completed the vocabulary size test, I had gone through each word that they had marked as knowing the word and I asked the participants if they could tell me what the definition of the word was. It was revealed that the participants did not know 2–5 words (1.34–3.35%) that they had marked. This means that there is less than 5% margin for error due to the participants’ overestimation of their actual vocabulary knowledge. When asked about why they thought they knew these words, they answered that they mistook the words as meaning something else. They also said that they would have known better if the word had appeared in context, for example in a sentence. It is also not reliable to assume that participants will not know challenging English words. Words such as ‘vestibule’ and ‘chicanery’ were correctly identified as being words that the test takers knew and interestingly something they had remembered looking up from the dictionary when either hearing “such an odd word” or trying to find a translation for a Finnish word. Furthermore, to counter against the overestimation or underestimation of the vocabulary knowledge, the words in the connotation test were from the vocabulary size test. Therefore, the results of the vocabulary size test were crosschecked with those of the connotation test. Any discrepancies were adjusted. For example, if the participant claimed that they knew a certain word in the vocabulary size test but failed in knowing the word in the connotation test, then their vocabulary size test results was corrected accordingly.

The test was not modified, apart from minor changes in the layout, as a result of the pilot, because the margin for error was not considerable, though it is something that should be taken into consideration when analyzing and discussing the data.

6.2.2 Vocabulary depth and connotation test

I constructed a connotation test, which was based on John Read’s (1993, 1998) Word Associates Test to measure the vocabulary depth and comprehension of connotations. Read’s original test did not measure the latter item. Instead of measuring synonyms and collocations, I have substituted collocations with connotations (see Figure 1). Each item also included three boxes: negative, neutral, positive. The participant had to tick the appropriate box according to their opinion depending on whether the word has a

positive, neutral, or negative connotation. The test included 40 items, i.e. words. In the original test, the stimulus word occurred without context. This can be challenging in determining any words that are related to it, because there are cases of homographs—words with the same form and different meanings. When the word occurs in context, the meaning of the word is clearer. For example, ‘wave’ can refer to the action of moving your hand as a form of greeting or it can refer to the movement of water. In the adapted version of the test, the stimulus word occurred in a sentence for the purpose of avoiding this ambiguity.

Figure 1 The original and modified version of John Read’s (1993, 1998) Word Associates Test

Original Word Associates test:
The left box shows synonyms, and the right box shows collocations (group of words that usually appear together). The test taker is meant to tick 4 items that are relevant to the stimulus word.

1. beautiful

enjoyable expensive free loud education face music weather

Adapted test:
The test taker is meant to tick 4 items in total that are relevant to the underlined word. They also have to tick a box on whether the word has a positive, neutral, or negative connotation. If they have any other words that come to their mind, they may write them down below “Anything else?”

1. That person is scrawny.

<input type="checkbox"/> boney	<input type="checkbox"/> lovely
<input type="checkbox"/> whiney	<input type="checkbox"/> unhealthy
<input type="checkbox"/> thin	<input type="checkbox"/> loud
<input type="checkbox"/> talkative	<input type="checkbox"/> undernourished

Negative Neutral Positive

Anything else?

Only the layout of the test had been piloted and not the actual content of the connotation test. As a result, the layout of the test was changed. In the original test, a division of the box between the synonyms and other related words was a point of confusion for the test takers. The test takers also wanted an option not to answer the question if they did not know the underlined word. This was acknowledged in the revised instructions, in which the test taker was encouraged to skip the item if they did not know the word. They were also allowed to mark a question mark next to any synonyms or connotative meanings

that they did not know. In such cases, a point would not be docked off if the test taker did not choose the correct option. The reason for this is because the focus is on testing the participant's knowledge of the underlined word and not on their comprehension of the words listed as options related to the said word. Had the words been in Finnish, perhaps the test taker might have chosen the correct option.

Because connotations differ and are largely dependent on perception (there are no connotation dictionaries), I had six native English speakers do a modified version of the connotation test. In that modified test, they were asked to identify if the underlined word had a negative, neutral, or a positive connotation. Then they had to come up with as many connotations of the word as they could. The most common connotations were then chosen to be included as options in the final version of the adapted connotation test. The reason this was done was to ensure an authentic outcome to which I would be able to compare my participants' results to, in order to see if they had accurate or inaccurate answers. This was done by approximating the results of the participants to the results of the native English speakers. The native speakers' perception of the emotive charge of the words (negative, neutral, positive) was also used as a standard to assess the approximation of the results of the Finnish EFL learners. In Table 2 is the results of the native speakers' perception of the emotional charge of the words used in the connotation test.

Table 2 Native English speakers' perception of the emotional charge of the words in the Connotation test

Emotional charge	Negative	Negative or Neutral	Neutral	Neutral or Positive	Positive	Mixed responses
Words	Mean	Booze**	American football	Well-endowed***	Squeaky clean*	Suffering**
	Lazy	Babble	Donkey*	Spice	Assured*	Deplore
	Prude	Clownish	Hive*		Pleased*	Daydream
	Dreaded	Nameless	Make	Comparable*	Like-minded*	Imitate
	Thug	Thickset			Own up*	
	Sadistic	Wound up	Penis		Grateful	
	Rubbishy*	Overstatement	Hand out		Pioneering	
	Self-centred		Serviceable*			
	Unreliable					
	Let down					
Bang*						
Break-in						
Total number of words	12	7	8	2	7	4

*Only 1 respondent would categorize it differently.

**Most respondents perceived the word as negative

***Most respondents perceived the word as positive

Some words were seen by all or nearly all (at most, only 1 respondent would disagree) as being strictly negative, neutral, or positive. However, as seen in Table 2, not every word was unanimously viewed as being strictly negative, neutral, or positive. If a word had been categorized in all 3 different emotive categories (negative, neutral, positive), the said words are categorized in the present study under “Mixed responses”. The native English speakers' perception on the emotional charge differed in many of the words. In these cases, the assessment of the results of the Finnish speakers had to be adjusted. If the native speakers had categorized one word as being, for example, negative or neutral, then the Finnish speaker would also need to categorize the same word as either negative

or neutral in order to get full marks. If the native speakers have mixed responses of the emotional charge of the word, the words were excluded from the analysis (4 words). This is because all answers would be correct, and it would neutralize the results and present a false interpretation of the data. Furthermore, it would not have an actual effect on the results of the present study.

The scoring of the test was done by using the “All-or-nothing” method in which the test taker’s answer has to be completely correct in order to get a point for a test item (Zhang and Koda 2017, 18). Schmitt, Ng, and Garras (2011) compared the research of this scoring method with that of two others and found the “All-or-nothing” score method to be best suited for comparative studies and to see whether the test taker actually knows the target word or not. The researchers also noted that split scores, i.e. not full points or zero points, have been problematic in not providing reliable interpretation of actual vocabulary knowledge (Schmitt, Ng, Garras 2011; 109, 113). In other words, the partial knowledge of words cannot be interpreted reliably. Therefore, in the present study, the scores are not based on partial knowledge of words.

According to the instructions of the test, the participant had the option to skip the item if they did not know the word. The choice of skipping an item did not affect the chances of gaining a maximum score, because the scoring is based on the proportionality of the number of correct answers to the number of answered items. In other words, a participant who skipped a few items in the connotation test has the same chances of gaining maximum points as the participant who answered all of items. The purpose of doing this method is to ensure comparability between participants. It is not possible to test a participant’s connotational knowledge of a word if they do not even know the word in question. Furthermore, the connotation test is not a vocabulary size test but a vocabulary depth test. In the present study, the connotation test measures how well the test takers know the words that they recognize, not how many words they know. Without this method, there might be a skew in the results. This is because participants who do not recognize all of the tested words in the connotation test will certainly get lower connotation test scores than those who knew at least one meaning of all of the tested words. This does not, however, signify that the latter group of participants have better connotational knowledge than the former one.

There, of course, is a possibility for the test taker to strategize and try to answer as many items as possible, even if they were not familiar with the words, as opposed to someone who chose to skip words that they were not familiar with. In those cases, the strategizing group might have a worse score due to having a smaller proportion of correct answers to items answered.

Table 3 Connotation test scoring

Participants	Total number of items in the test	Number of items skipped	Maximum possible score (Number of items answered)	Number of incorrect answers	Number of correct answers	Percentage of correct answers	Score*
Person A	40	0	40	4	36	90%	90
Person B	40	4	36	0	36	100%	100
Person C	40	4	36	4	32	88.88%	89

*Score is the same as percentage of correct answers but without the percentage sign. The number is also rounded to the nearest whole number.

To gain a better understanding on the adjustments to the scoring of the connotation test, see Table 3. In practice, scores of the connotation test in these cases had to be adjusted: the maximum score was the number of items that participant answered. For example, if the participant skipped three items out of forty, then the maximum score that they could get was 37. If the participant did not skip anything and answered incorrectly or left an option unanswered, then they did not receive a point for it and their maximum score is still forty.

The connotation test score was determined by calculating the percentage of correct answers. In order to not confuse the reader, the percentage signs have been dropped out of the scores. So, a participant may receive an 87% score (i.e. 87% of the answers were correct), but in the present study the score is 87. The percentage scores were also rounded to the nearest whole number. To summarize, the focus of the scoring is based on the proportion of the number of correct answers to the number of answered items.

The age of the native English speakers ranged from 26 years old to those who are in their 50s: three of them were in their late 20s, two were over the age of 50, and one in their 30s. The English native speakers originated from different countries as well: The

United States (3), England (2), and Ireland (1). The way their origins were defined depended on the speaker's own perception of their national identity.

Due to the great age differences and the different national identities, there could be an argument that the generational and regional differences may result in discrepancy comprehending the connotations of different words. This may have resulted in the mixed responses of the emotional charge of many of the words. However, there were only two out of the 40 words in which there was a grouping of answers according to the nationality or age: "clownish" and "suffering."

6.2.3 Questionnaire

I used a questionnaire to find out about the English use of the participants and any background information that could be relevant to their English language proficiency. Each item in the questionnaire is a variable in the present study. The questionnaire items are based on previous receptive vocabulary studies done in Finland. English vocabulary studies in Finland usually aim at finding a correlation between vocabulary knowledge and either informal exposure to English or duration in an English-speaking environment. The present study focuses on the former variable. Many of the said studies incorporate at least the following variables: communication in English, listening to music, reading literature—some studies divide this into non-fiction and fictional—and watching TV series or movies (see Merikivi 2012, Ala-Akkala 2010). In addition to most or all of those variables, some of the studies also look at playing games in English (see Pirilä 2012) or the use of dictionaries (see Jaatinen and Mankkinen 1993). In order to get a broader perspective, the present study will explore all of these variables and their possible relationship to connotational knowledge.

The questionnaire items concerning the variables that were used in the present study was mostly based on Pirilä's questionnaire, though it had a few modifications. Unlike her study, the present study will make no distinction between the use of Finnish subtitles or lack of it in watching TV series or movies in English. This distinction would have been too specific for the purpose of the study and restricted comparability with other studies that also did not make such a distinction. There were also two additions made to the questionnaire pool that were not in Pirilä's study: the use of dictionary and listening to music.

First, the basic information of the participant was determined: year of birth, gender, native language(s), occupation and the main language that was being used in relation to the occupation, year of graduation (if graduated), number of years studying English in a Finnish speaking school, number of years studying with the language of instruction being English, total duration of stay in English-speaking countries, and the longest duration of stay in an English-speaking country.

The second part of the questionnaire was about the participants' habits of using English during their free time and the frequency of the habit. The options for the questions were the following: every day, a few times a week, a few times a month, once a month, and less than once a month. The questions concerned the frequency of communication in English, reading English non-fictional texts, reading fictional literature in English, listening to music in English, watching TV series or movies in English, playing games in English, and checking up English words on the dictionary (see Appendices 1–2).

7 Results

In this section, the results of the present study are presented. First, the data of the connotation scores are evaluated, followed by describing the data on the participants' frequency of using English during free time and its possible connection to connotational knowledge. After this, the vocabulary size scores are uncovered and its relationship with comprehension of connotations is looked into. Lastly, the reports of the participants on the tests is displayed.

7.1 Comprehension of connotations

This subsection presents data on the results of the connotation tests which were completed by the Finnish advanced EFL learners. The aim is to see the approximation of the Finnish participants' knowledge of connotations in comparison to native English speakers. This is done by using descriptive statistics.

The overall connotation test scores of the tests were further divided into scores of the subcategories of connotations: associations and emotional charge. In order to get a point in the third category (connotation score), the test taker had to get full marks for both the emotional charge and the associations of a word that was being tested. The closer the score is to 100, the maximum number of points, the closer it approximates the connotational knowledge of native speakers.

Table 4 Scores on emotional charge, associations, and overall connotations

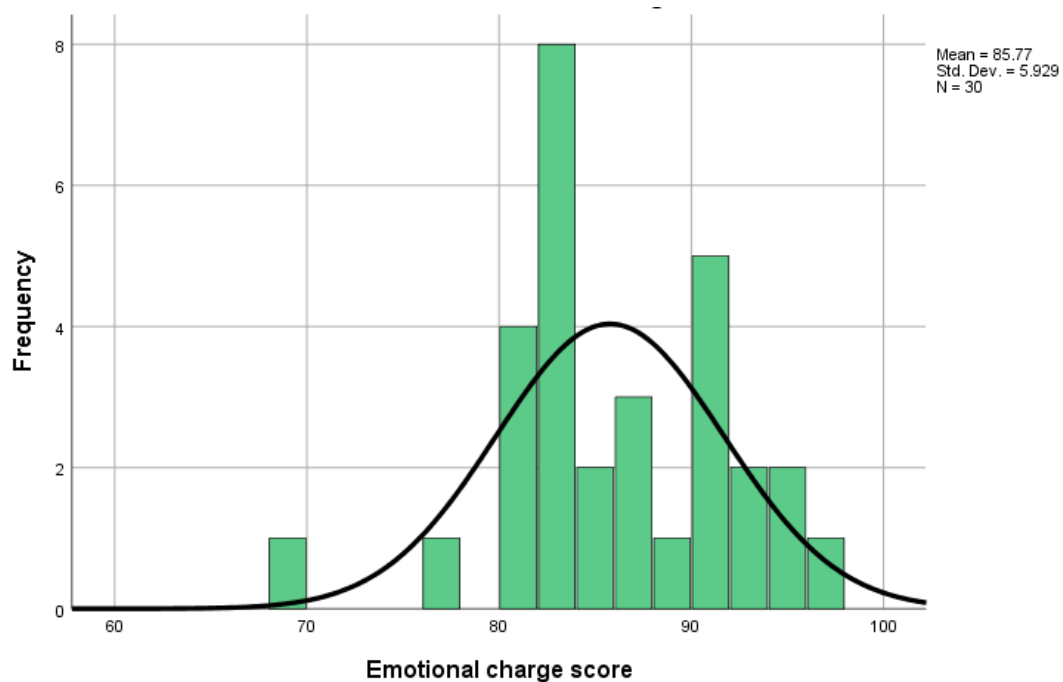
Statistics				
		Emotional charge score	Associations score	Connotation score (associations and emotional charge)
N	Valid	30	30	30
	Missing	0	0	0
Mean		85.77	39.70	33.63
Std. Deviation		5.929	22.421	18.606
Minimum		69	0	0
Maximum		97	81	75

1)The closer the score is to 100 (max. points), the closer it approximates the connotational knowledge of native speakers

As seen in Table 4, the minimum score of emotional charge was 69 and the maximum was 97 points. For associations score it was 0 and the highest score was 81. The overall connotation score also had 0 as the lowest score. The highest score was 75. Participants had the lowest scores in Associations and overall knowledge of connotations with them not having the same knowledge of connotations of any tested words with the native English speakers. The emotional charge score had the closest approximation in terms of minimum and maximum scores with participants having the same knowledge of 69% to 97% of the words as native speakers. The second highest maximum score was with associations with the knowledge of 81% of the words and the lowest maximum score being the connotation score at 75%.

The participants had a mean score of 85.77 in emotional charge, 39.70 in associations, and 33.63 in overall connotational knowledge. In other words, the participants had the same knowledge in emotional charge as native speakers in 85.77% of the words tested, the same knowledge in associations in 39.70% of the words, and same overall connotational knowledge in 33.63% of the words. This demonstrates that the Finnish participants had the highest approximation of knowledge to that of native speakers in terms of knowledge in emotional charge of words.

Figure 2 Distribution of the emotional charge scores



As demonstrated in Figure 2, the range of the emotional charge scores was 28. The standard deviation was 5.929, which signifies it is out of all the score types, the most clustered around the mean score. The range of associations score is 81 with the largest range of scores at 81 and the largest standard deviation at 22.421, which signifies that out of all the score types, it is the most spread out (see Figure 3). The overall connotation score has a range of 75 with the standard deviation being 18.606, which is also quite spread out in terms of the distribution of scores.

Figure 3. Distribution of the associations scores

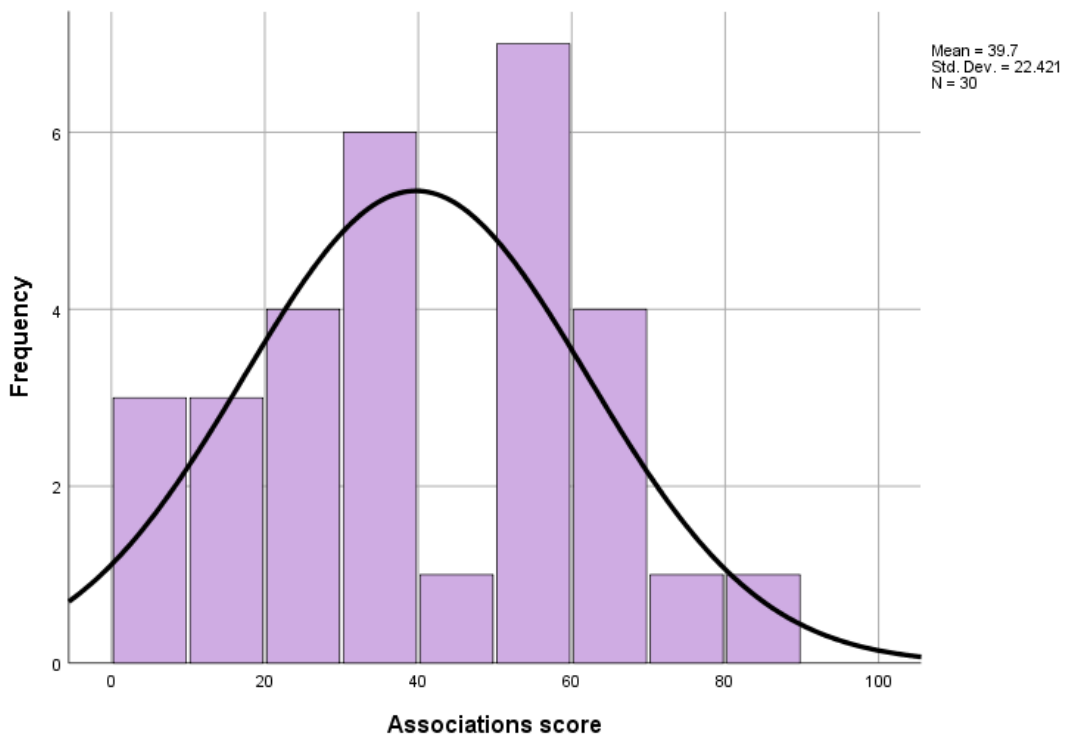
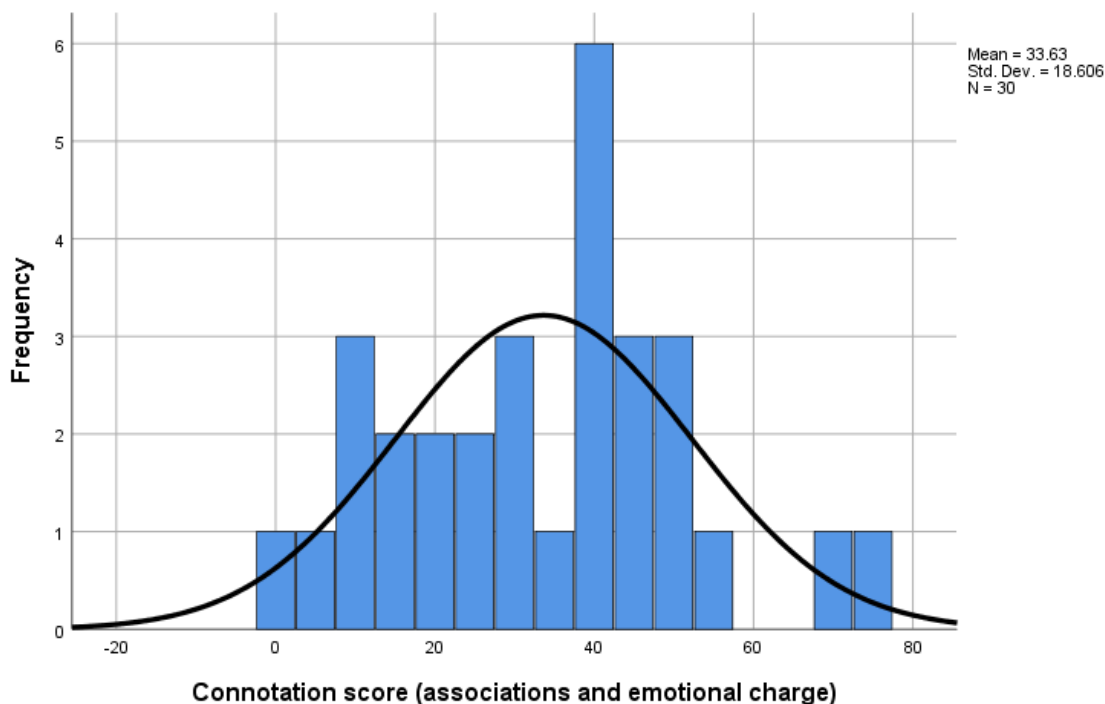


Figure 4. Distribution of the connotation scores



Overall, participants had by far the highest scores in emotional charge and the lowest scores in associations. The range of scores was also smaller in emotional charge scores. The scores in overall connotations was the lowest due to the score being made up of both the association score and the emotional charge scores. In order to get a point, they would have to get both the emotional charge and the association score of a word item correct. In many cases, the participants would get the emotional charge correct but not the associations or vice versa. The results of this subsection signify that the participants approximated native speakers the most when it comes to the knowledge of the emotional charge of words while having low association scores would imply that they have different associations of words than native speakers.

7.2 Frequency of using English during free time

Spearman's rho was used to answer the second research question: is there an association with the frequency of using English during free time and knowledge of connotations? First, the descriptive statistics of each different types of use of English is presented. Then, the correlation results will be described.

Table 5 Frequency of personal communication in English

Frequency of personal communication in English	Number of students	Mean score in emotional charge	Mean score in associations	Mean score in connotation test
Every day	43.3% (13)	88	50.69	41.31
A few times a week	30% (9)	84.67	26.78	24.44
A few times a month	10% (3)	81.67	46.33	40.33
Once a month	10% (3)	85.67	22.67	21.33
Less than once a month	6.7% (2)	82.50	42	33.50
Total	30 participants			

In Table 5, the range of answers on the frequency of personal communication in English is 5, though there is a low number of answers in 3 of the low frequency bands.

Table 6 Frequency of reading nonfiction literature in English

Frequency of personal communication in English	Number of students	Mean score in emotional charge	Mean score in associations	Mean score in connotation test
Every day	66.7% (20)	86.45	39.50	33.70
A few times a week	16.7% (5)	82.60	48.40	37.60
A few times a month	6.7% (2)	84.50	17	14
Once a month	3.3% (1)	84	34	28
Less than once a month	6.7% (2)	89	45	45
Total	30 participants			

As with a previous variable, there are low numbers of answers in the four lowest frequency bands in the frequency of reading nonfiction literature in English even though the range is 5 (see Table 6). Surprisingly, the highest mean scores in the connotation test was not associated with the highest frequency of reading nonfiction literature in English. The frequency of reading fictional literature, on the other hand, did not have as wide a range as reading fiction. There were no answers in the second lowest frequency band, thus the range for it is 4 (see Table 7).

Table 7 Frequency of reading fictional literature in English

Frequency of reading fictional literature in English	Number of students	Mean score in emotional charge	Mean score in associations	Mean score in connotation test
Every day	30% (9)	85	35.67	29.44
A few times a week	26.7% (8)	88.63	44.38	39.38
A few times a month	20% (6)	85	47.17	38
Once a month	0% (0)	-	-	-
Less than once a month	23.3% (7)	84.14	33.14	28.71
Total	30 participants			

Table 8 Frequency of listening to music in English

Frequency of listening to music in English	Number of students	Mean score in emotional charge	Mean score in associations	Mean score in connotation test
Every day	63.3% (19)	97	81	75
A few times a week	33.3% (10)	92	69	51
A few times a month	3.3% (1)	91	77	46
Once a month	0% (0)	-	-	-
Less than once a month	0% (0)	-	-	-
Total	30 participants			

Unlike most of the variables, the frequency of listening to music in English only has a range of 3 instead of 5 with all of the data clustered around the top 3 highest frequency bands (see Table 8). As was with the frequency of listening to music, also the frequency of watching TV series or movies in English has a range of 3 with the two lowest frequency bands not having data (see Table 9). This means that none of the participants listened to music in English or watch TV series or films in English more seldomly than a few times a month.

Table 9 Frequency of watching TV series or movies in English

Frequency of watching TV series or movies in English	Number of students	Mean score in emotional charge	Mean score in associations	Mean score in connotation test
Every day	46.7% (14)	87.57	33.29	29.50
A few times a week	43.3% (13)	83.83	41.69	34.69
A few times a month	10% (3)	85.67	61	48.33
Once a month	(0)	-	-	-
Less than once a month	(0)	-	-	-
Total	30 participants			

Table 10 Frequency of playing games in English

Frequency of playing games in English	Number of students	Mean score in emotional charge	Mean score in associations	Mean score in connotation test
Every day	23.3% (7)	86.86	42.71	36
A few times a week	23.3% (7)	88.14	45.86	41.43
A few times a month	10% (3)	85.33	28	21.33
Once a month	6.7% (2)	80.50	36.50	29.50
Less than once a month	36.7% (11)	86.64	37.64	31.27
Total	30 participants			

The frequency of playing games in English had low number of answers in the third and second lowest frequency bands (see Table 10). In Table 11, most of the answers were centered around the second and third highest frequency bands when it comes to the use of dictionary during free time.

Table 11 Frequency of using a dictionary

Frequency of using a dictionary	Number of students	Mean score in emotional charge	Mean score in associations	Mean score in connotation test
Every day	3.3% (1)	81	25	19
A few times a week	40% (12)	85.50	44.42	36.25
A few times a month	26.7% (8)	88.38	36.50	30.13
Once a month	16.7% (5)	84.20	39.40	35.80
Less than once a month	13.3% (4)	84.50	36	33.75
Total	30 participants			

To summarise, many of the variables had either no answers or a low number of answers within the three lowest frequency bands, in some cases resulting in a smaller range. This demonstrates that the advanced learners of English use English during their free time more frequently than not. Next, the correlations of the dependent and independent variables are described.

Table 12 Correlation between emotional charge scores and frequency of using English during free time

Correlations			Emotional charge score
Spearman's rho	Emotional charge score	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	30
	Frequency of personal communication in English	Correlation Coefficient	-.387*
		Sig. (2-tailed)	.035
		N	30
	Frequency of reading nonfiction literature in English	Correlation Coefficient	-.112
		Sig. (2-tailed)	.556
		N	30
	Frequency of reading fictional literature in English	Correlation Coefficient	-.173
		Sig. (2-tailed)	.360
		N	30
	Frequency of listening to music in English	Correlation Coefficient	-.229
		Sig. (2-tailed)	.223
		N	30
Frequency of watching TV series or movies in English	Correlation Coefficient	-.224	
	Sig. (2-tailed)	.234	
	N	30	
Frequency of playing games in English	Correlation Coefficient	-.266	
	Sig. (2-tailed)	.155	
	N	30	
Frequency of using a dictionary	Correlation Coefficient	-.047	
	Sig. (2-tailed)	.807	
	N	30	

*. Correlation is significant at the 0.05 level (2-tailed)

As demonstrated in Table 12, the test indicates that the strength of the relationship is modest when it came to the negative correlation between frequency of personal communication in English and emotional charge scores ($r = -.387$, $N = 30$, $p < 0.05$). There is a modest relationship between personal communication in English and

understanding the emotional charge of words have a connection, in which when one of them increases, the other one decreases.

Table 13 Correlation between associations scores and frequency of using English during free time

Correlations			
			Associations score
Spearman's rho	Frequency of personal communication in English	Correlation Coefficient	-.328
		Sig. (2-tailed)	.077
		N	30
	Frequency of reading nonfiction literature in English	Correlation Coefficient	.022
		Sig. (2-tailed)	.907
		N	30
	Frequency of reading fictional literature in English	Correlation Coefficient	-.011
		Sig. (2-tailed)	.955
		N	30
	Frequency of listening to music in English	Correlation Coefficient	.254
		Sig. (2-tailed)	.176
		N	30
	Frequency of watching TV series or movies in English	Correlation Coefficient	.366*
		Sig. (2-tailed)	.047
		N	30
Frequency of playing games in English	Correlation Coefficient	-.116	
	Sig. (2-tailed)	.542	
	N	30	
Frequency of using a dictionary	Correlation Coefficient	-.064	
	Sig. (2-tailed)	.739	
	N	30	
Associations score	Correlation Coefficient	1.000	
	Sig. (2-tailed)	.	
	N	30	

*. Correlation is significant at the 0.05 level (2-tailed)

In Table 13, the frequency of watching TV series or movies in English had a moderate relationship strength in terms of a positive correlation with associations score ($r = .366$, $N = 30$, $p < 0.05$). In other words, there is a moderate relationship between frequently

watching TV series or movies in English has a relationship with high comprehension of the associations of a word.

Table 14 Correlation between overall connotation scores and frequency of using English during free time

Correlations			Connotation score (associations and emotional charge)
Spearman's rho	Connotation score (associations and emotional charge)	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	30
	Frequency of personal communication in English	Correlation Coefficient	-.247
		Sig. (2-tailed)	.188
		N	30
	Frequency of reading nonfiction literature in English	Correlation Coefficient	-.022
		Sig. (2-tailed)	.909
		N	30
	Frequency of reading fictional literature in English	Correlation Coefficient	.068
		Sig. (2-tailed)	.722
		N	30
	Frequency of listening to music in English	Correlation Coefficient	.107
		Sig. (2-tailed)	.573
		N	30
	Frequency of watching TV series or movies in English	Correlation Coefficient	.312
		Sig. (2-tailed)	.093
		N	30
	Frequency of playing games in English	Correlation Coefficient	-.159
		Sig. (2-tailed)	.401
		N	30
	Frequency of using a dictionary	Correlation Coefficient	-.043
		Sig. (2-tailed)	.823
		N	30

In Table 14, there were no notable results that were of notable significance. In other words, there were no relationships found between the dependent and independent

variables. There appears to be no relationship between overall understanding of connotations of a word and the frequency of using English during free time, however the statistical insignificance indicates that this may very well be due to chance.

To summarise, there is a modest relationship strength in terms of negative correlation between frequency of personal communication in English and emotional charge scores. Another finding is a moderate strength of relationship in terms of the positive correlation between the frequency of watching TV series or movies in English and the understanding of associations of words. No relationships of statistical significance were found between the overall comprehension of connotations the use of English during free time.

7.3 Vocabulary size

The last research question was to discover if there was a correlation between vocabulary size knowledge and knowledge of connotations. This was done by using Spearman's Rho to determine if there was a relationship. Before that, the descriptive statistics of the vocabulary size scores will be presented in order to get a better understanding of the variable data.

Table 15 Vocabulary size test scores and estimations

	Number of participants	Minimum	Maximum	Mean	Std. Deviation
Test scores*	30	61.7% (92)	98.7% (147)	87.2% (130)	13.829
Vocabulary size estimation	30	19,638 words	31,415 words	27,755 words	

*Percentage is the proportion of correct answers out of the total score of 149.

The mean score for the vocabulary size test is 130 (87.2% of the words). The lowest vocabulary size score of the participants was 92 (61.7% of the words) and the highest score was 147 (98.7% of the words) with the range being 55. (see Table 15 and Figure 5). The standard deviation is 13.829. In terms of estimating the vocabulary size, the lowest was 19,638 words and the highest was 31,415 words. The average vocabulary size of the Finnish participants was 27,755 words.

Figure 5 Distribution of the vocabulary size scores

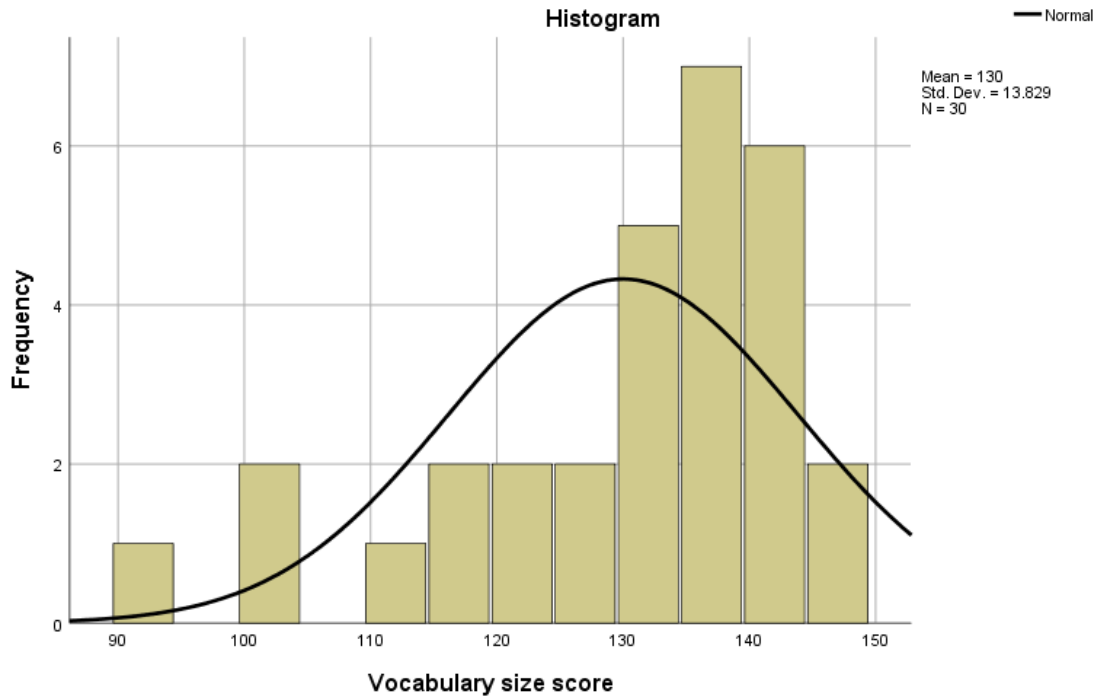


Table 16 Correlation between connotation score and vocabulary size score

Correlations			Connotation score (associations and emotional charge)	Vocabulary size score
Spearman's rho	Connotation score (associations and emotional charge)	Correlation Coefficient	1.000	-.051
		Sig. (2-tailed)	.	.789
		N	30	30
	Vocabulary size score	Correlation Coefficient	-.051	1.000
		Sig. (2-tailed)	.789	.
		N	30	30

As indicated in Table 16, there is no correlation or a very weak negative correlation with no statistical significance between the two variables and a weak strength of relationship ($r = -.051$, $N = 30$, $p > 0.05$). Either there is no correlation between the variables or increases or decreases with vocabulary size scores were correlated with the

opposite in connotation scores. However, these results are not statistically significant, and the variables have a weak relationship. This signifies that the results may be due to chance and may be different if repeated with a different number of participants.

7.4 Qualitative data

In this subsection, the qualitative data of the test takers will be presented. This qualitative data presents how the participants felt about the tests that they had done and the thoughts they had on the topic. The purpose of this data is to complement the quantitative data in the present study. The excerpts of the participants' writings have been translated from Finnish into English. To view the answers in their unabridged state and in the original language, see Appendix 7. The letter 'P' and number in the beginning of each text excerpt stands for 'participant' and the identification number they've been assigned.

Most of the respondents viewed the tests as relatively easy, though they did also mention the challenges in particularly in the connotation test. The common themes among the answers are the following: 1) uncertainty of own knowledge, 2) the effects of context on own decision-making, 3) not agreeing with all the associations and coming up with other associations, and 4) the challenges of deciding the emotional charge of words.

In some items of the connotation test and the vocabulary size test, the participants were uncertain of their own knowledge of the words in question. This is evident in the answers of the two following participants in examples 1 and 2. These participants were unsure if they actually knew the word or not. Participant 4 was unsure in some cases if they fabricated the meaning of a word or if they actually knew the word. Participant 7, on the other hand, found it challenging to determine if they knew some of the words. This is because they reported that they know they have been exposed to the words before, but the actual context of those occurrences eludes them and thus they are unsure of the meaning of the said words.

- (1) Participant 4: When it came to some words, I wasn't sure if I really understood the word or if I just created my own understanding of "what it has to mean."

- (2) Participant 7: In the vocabulary size task, it was difficult to determine if I knew some of the words, because I have heard and read them many times, but I don't remember the context, or I wasn't sure what the words meant.

Another point raised by the participants was the effect of the context on their decision-making when completing the connotation test. The sentence the underlined word appears in and even the options of associations affected them when deciding if the underlined word was either negative or positive—note that they did not mention neutral as being one of the legitimate choices. Participants 1 and 8 raised this point by stating that their decision on the emotional charge of the underlined word was affected by the options of associations, which implies that the participants' personal view of the word outside of the test may have been different (see Example 3 and 4). Participant 3 also suggested that the example sentences that the tested word appears in affects the decision-making of the test taker when choosing the emotional charge (see Example 5). One participant found a way to solve this issue of context by adding their own note under the open-ended question in the connotation test (see Figure 6). This participant gave an alternative answer to the emotional charge of the word by stating that in a different context, the word would appear negative to them instead of neutral.

- (3) Participant 1: In the connotation part, it was sometimes difficult to remember that you are meant to concentrate on the underlined word. At times it felt like the other words on the list were affecting my view on whether I saw the word as positive or negative.
- (4) Participant 8: Sometimes it was difficult to think if the word was neutral, neg., or pos., or was it affected by for example those associations of the word.
- (5) Participant 3: The example sentences may create a certain kind of context which may lead/restrict certain connotations?

Figure 6 A participant's additional answer on determining the emotional charge of the underlined word

21. Our <u>donkey</u> is there.	
<input type="checkbox"/> horse	<input type="checkbox"/> funny
<input checked="" type="checkbox"/> ass	<input type="checkbox"/> stupid
<input type="checkbox"/> jackass	<input type="checkbox"/> stubborn
<input type="checkbox"/> boss	<input type="checkbox"/> smart
<input type="checkbox"/> Negatiivinen <input checked="" type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen	
Jotain muuta? if one called a person a donkey, then negative	

Without mentioning the context as being the reason, other participants also described the challenges of deciding the emotional charge of the words in the connotation test (see Examples 6-7). Participant 5 even found it to be the most challenging part of the test and as a result chose neutral as the option for emotional charge (see Example 7). This indicates that neutral was seen in some cases to be an equivalent to an “I don’t know” option.

- (6) Participant 4: I felt that it was challenging to think about whether the connotations were positive, negative, or neutral.
- (7) Participant 5: The most challenging part was maybe defining the connotation's emotional charge (positive/negative). Many items were chosen to be neutral as a result.

It was also mentioned several times that the participants did not completely agree with all of the associations of the underlined words (see Examples 8-12). However, many of them did not write down their own options even though they were allowed to do so (see Examples 10 and 11). It must be noted that despite these answers, there were several other participants who did write down their own associations in the connotation test.

- (8) Participant 2: For the most part, I could only choose three [options], because many of the words did not feel like they really fit my own connotations.
- (9) Participant 3: It wasn't evident in the instructions on whether four connotations were required as an answer in case the test taker disagreed with the words provided – I sometimes added my own words to meet the quota of four [options].
- (10) Participant 5: The tests were relatively easy. In a few items, I had to choose the fourth option from the remaining words, which I consider to be the least fitting options, but all choices could be justified. [...] For every [underlined] word, I left the part “Something else?” unanswered even though some might have even had interesting connotations.

Based on the answers of the participants, there appears to be a need for further clarification in the instructions of the connotation test that, since the uncertainty of whether or not the test taker had to choose 4 options of associations resulted in test takers taking on different strategies to cope with the uncertainty. These strategies were: adding own suggestions of associations, choosing 3 options, or forcefully choosing 4 options even when it does not fully match the test taker's own connotational knowledge. These strategies are illustrated by the following examples. Participant 3 was uncertain if there was a certain number of options that had to be chosen in the connotation test and sometimes added their own suggestion of an association (see Example 9). Participant 2 chose to not forcefully tick a fourth option if the remaining words did not fit their connotations whereas Participant 5 decided to choose a fourth option even if they saw it as the least fitting option, because they saw that all of the options could be justified (see Examples 8 and 10).

In some cases, even when presented with the option of adding one's own connotations that were not listed as options in the test, the test takers have been either overwhelmed by the amount of words in the test or unable to come up with any of their own options at the moment (see Examples 11 and 12).

- (11) Participant 6: The most challenging part was to try to come up with some synonyms, which is the reason why I left the part “Something else?” unanswered. After the cloud of words, I had such a mental blackout and I couldn’t come up with any synonyms that made sense.

- (12) Participant 7: I couldn’t come up with any additional words for most of the items, it felt like they were all already as options. In the “American football” part, I wanted to choose more than four words, like “popular” and “cool,” because the players of the sport in question remind me of those words. You were supposed to only choose words that first came into your mind.

The qualitative data shed light on some interesting aspects of the test and uncovered some problematic aspects as well. Determining the emotional charge was considered the most challenging part of the test, while many noted that the options presented in the test and the example sentence affected their decision-making when answering the test. The problematic part is the various ways of interpreting the instructions of the connotation test in regard to choosing the associations of a tested word. The instructions of the test stated that four options should be chosen, but if they are unsure about the options, they may choose less than four. In the feedback, the participants were unsure if they had to choose four options, even if they did not feel comfortable with the remaining options as the fourth one. Either they did not read the instructions thoroughly or then they were unsure if they would be docked points for not choosing four options. One participant chose to write in their additional associations, which was stated as a possibility in the test instructions, another participant chose only three options, and the third participant forced themselves to choose a fourth option even if they did not completely agree with it. These divergences in decision-making may affect the results and the comparability between the participants when it comes to the associations score and the overall connotation score.

8 Discussion

This section will discuss the results present in section 7 and in relation to the theoretical background described in sections 2 to 5. Descriptive statistics was used to answer the first research question “Does the Finnish advanced EFL learners’ comprehension of connotations in terms of emotions and additional meanings or nuances approximate that of native speakers?”. The connotational knowledge of the participants is divided into two subcategories: *associations*—what concepts and imagery comes to mind when hearing the word, and *emotional charge*—whether a word is negative, neutral or positive. The overall connotational knowledge was calculated by combining these two subcategories. The scores of these three categories were surprising. On average, participants fully understood 87.77% of the emotional charge of words, 39.70% of the associations of the words, and 33.63% of the overall connotations of the words in the same manner as the native speakers do. This signifies that Finnish advanced learners at a university level approximate the knowledge of native speakers best at the level of the emotional charge of the words. The learners only fully understand less than half of the words’ associations and overall connotations that native speakers have.

The overwhelmingly high scores in the emotional charge of words was a surprising turn of events, considering that most of the participants viewed that the most challenging part of the tests was evaluating the emotional charge of the words. One participant even chose the option “neutral” as the emotional charge of the words if they were unsure of the emotional charge. Degner’s (2012, 181) study related that bilinguals with high proficiency in both languages have reported feeling less emotional in their L2 in comparison to their L1. This perhaps may explain the participant’s uncertainty in the emotional charge of the words, but it does not explain the high scores of the participants in this subcategory of connotations. The emotional charge of a word is more general than specific associations of words and has less options to choose from. Therefore, there is a larger likelihood of different speakers agreeing on the emotional charge of a word than with specific associations. Furthermore, the participants had reported that the context the tested word appears in and the options of associations presented with it had an effect on their decision-making. Words are understood in their context, so the sentence a word appears in is not a point of worry. For example, the word “bang” has a different meaning in different sentences. To bang a door is not the same as hearing a

bang. Therefore, their connotations may also differ, and it is important to have the context presented with the tested word or the data may be unreliable. The options of associations affecting their choice of emotional charge, on the other hand, may prove a point of contention and would need to be revised and modified if the present study's connotation test were to be replicated in the future. This may also indicate that the score in the emotional charge of the words was slightly inflated. It must be noted that one participant circumvented the difficulty in decision-making by providing an alternative response in the tested item, as was deemed possible in the test instructions, and stated that in a different context the tested word would have a certain emotional charge. This singular case, however, is not enough to counter the significance of the experiences of other participants.

The low scores in terms of associations and overall connotations may be explained by many different factors. The first of them being unquestionably that Finnish native speakers have different associations of words than native speakers. Connotations are formed not only from the knowledge of the word's denotation, but also through the experiences, beliefs, and prejudices one has about the context the word usually appears in (Allan 2001, 91). Connotations also come with a cultural aspect to them that members of other communities may not be aware of or understand (see for example Deghani 2009, Nation 2001). Therefore, it is not farfetched to believe that Finnish learners of English have formed their own connotations of concepts and words that may differ from that of others. The same also applies to native speakers. However, people do have common experiences, so an overlap between native speakers and language learners in connotational associations is possible (Kreidler 1998). This similarity in experiences and cultural information infers that Finnish learners have a partial overlap of connotational knowledge with native speakers but have different mental associations of most of the words. It must be noted that the scoring of the tests in terms of associations and overall connotational knowledge did not take into consideration if the participants had a partial overlap of connotational knowledge in other words; it only assessed if they had fully understood the words the same way as native speakers do.

If the results are not fully explained by differences in associations of learners of different cultural and linguistic backgrounds, perhaps the focus should be on the connotation test itself and the procedures involved in it. As stated before, the scoring of

the connotation test was conducted by using the “All-or-nothing” method in which participants would get a point for an item in the test only if they got everything correct, otherwise they would not get any points for that item. Because of this, partial knowledge of connotations was not taken into consideration and this was due to the unreliability of split scores, which are scores that are neither full points nor zero points, in providing reliable information on vocabulary knowledge (Schmitt, Ng, Garras; 109, 113). This harsh way of scoring may also have an impact on the low scores in associations and overall connotational knowledge, though it would then not explain the tremendously high score in emotional charge.

Another source of explanation might come from the participants themselves. Many of them stated that they did not completely agree with enough association options of the tested words. They would usually manage to choose three options but choosing the fourth one was challenging. The uncertainty stemmed from the connotation test instructions. The participants did not know if they had to forcefully choose four options in order to get full points even if they did not fully agree with the fourth option. This issue resulted in three strategies being adopted in dealing with the uncertainty: adding own associations, choosing three options, or forcefully choosing 4 options even if they do not completely match the test taker’s connotational knowledge.

According to the test instructions, four options should be chosen but in cases of uncertainty, the test taker may choose less than four options. It is true that the test did not indicate if the test taker needed the four options to get points. On the other hand, the test also provided an option under each tested word for the test taker to write down their own associations. Some of the participants chose to do so while others did not, with explanations such as being overwhelmed by the number of words in the tests and being unable to come up with new words. A few participants simply stated that they chose not to include their own associations without further explanations. The divergences in the strategies of choosing the associations in the connotation test may have affected the results of the association score and the overall connotation score. In terms of knowledge in associations and overall connotations, the comparability between the participants has decreased and the data is less reliable.

The second research question was to discover if there was a connection between connotation comprehension and the use of English during free time. Prior vocabulary

studies had inspected the relationship between vocabulary knowledge and the use of English outside of the classroom (see, for example, Jaatinen and Mankkinen 1993, Piriälä 2012, Pietilä and Merikivi 2014). Personal communication has been noted to have a low correlation with vocabulary test scores (Jaatinen and Mankkinen 1993, 171; Piriälä 2012, 98). Similarly to those results, in the present study, emotional charge and personal communication had a slight negative correlation with the strength of the relationship being modest ($r = -.387$, $N = 30$, $p < 0.05$). The negative correlation may be understandable if the people the participants are conversing with in English are not native English speakers. In that case, it is understandable that they would not acquire a similar sense of emotional charge as native speakers.

Watching TV series and movies had a positive correlation with knowledge of associations with the strength of the relationship being moderate ($r = .366$, $N = 30$, $p < 0.05$). This is somewhat in adherence to Piriälä's (2012, 98) results in which she also found a correlation between watching TV series and movies and vocabulary size. Even though connotational knowledge in the present study is classified under vocabulary depth, this result is significant in terms of advancing a language learner's vocabulary knowledge. Another difference between the studies is that she had further divided the variable: watching with Finnish subtitles and watching without them. Both gave different correlations with the former being a negative correlation and the latter a positive one. Therefore, not only does this indicate that watching without Finnish subtitles has a relationship with a large vocabulary size, it also has a relationship with a high proficiency in understanding the associations of a word. Naturally, this is only a speculation due to the possible unreliability of the association scores.

No results of notable significance were found between overall connotational knowledge and the use of English during free time ($p > 0.05$). This indicates that the results may be attributed to chance. Furthermore, as noted previously, there are issues in determining the overall connotational knowledge of the participants. If the data were more reliable, the indication would prove differently from previous studies. Researchers have found a high positive correlation with vocabulary size and vocabulary depth (see Qian 1999, Harkio and Pietilä 2016, and Lahtikallio 2016). Connotational knowledge, which is part of vocabulary depth, did not have such a correlation in the present study and as such would indicate that not all types of vocabulary depth are indicators for

vocabulary size. Traditionally, vocabulary depth tests have been focused on collocations, synonyms with the tested words being adjectives or vocabulary depth has been measured using a self-reporting test in which the test taker estimates how well they know the word and if applicable, demonstrate its use in a sentence (cf. John Read 1993, 1998; Paribakht and Wesche 1993). These tests do not test for associations as the connotation test in the present study did. If the data in the present study would be statistically significant in a future test with a larger sample size, that would call for more research being done in the relationship between vocabulary size and other subcategories of vocabulary depth.

The vocabulary size of the participants was larger than expected. The average vocabulary size of advanced Finnish learners was 27,755 words: the range being from 19,638 words to 31,415 words. Considering the margin of error of overestimating one's knowledge in the piloting of the vocabulary size test (1.34–3.35%), the conservative estimation would be that the average vocabulary size is 26,825 words with the range being from 18,980 words to 30,363 words. In 1993, the average vocabulary size for advanced university students was 19,500 words (Jaatinen and Mankkinen 1993). In 2012, this estimation was 23,200 words (Pirilä 2012). As discussed in 2.3, the average vocabulary size of Finnish learners has increased over the years. Between 2012 and 2019, there is now an increase of approximately 3,600 words. It must be considered, however, that the present study included university graduates, which may skew the results towards a bigger size. Pirilä's (2012) and Jaatinen and Mankkinen's (1993) studies also included English minor students who may have smaller vocabulary sizes.

The vocabulary size of the participants is close to the estimation of the vocabulary size of native speakers. In 1990, the estimation for English native speakers was 20,000 word families, which would be 32,000 lemmas (Goulden, Nation and Read 1990). In 2016, the native speaker range was estimated to be from 27,000 to 52,000 lemmas (Brysbaert et al. 2016). A 20-year-old English native speaker is estimated to know 42,000 lemmas or 11,000 word families in the United States (ibid.). The vocabulary size of the participants in the present study reported knowing 27,755 words. As is done in dictionary-based vocabulary size tests, the unit of counting words is something that is situated between the concept of a word family and a lemma (Jaatinen and Mankkinen 1993, Pirilä 2012). Therefore, the estimated vocabulary size of the

participants is situated within the native speaker range, which is either between 20, 000 word families and 32, 000 lemmas, or between 11, 000 word families and 42, 000 lemmas. Though the latter estimation was made of a 20-year-old and the average age of the language learners in the present study was 27.

The participants in the present study had raised concerns over their uncertainty of their own knowledge of words in the vocabulary size test. They were uncertain if they actually knew a word listed in the test and one participant recalls having encountered the word before but not quite recalling its meaning. The instruction of the test was to mark the word if the test taker knew at least one meaning of the word. In the present study, simply recognizing a word does not count as knowing the word. Out of context, it is difficult to determine the meaning of a word as there are no cues into the word class of the word or any other part of meaning a word would have indicated by the sentence it appears in.

There has been concern over the face validity of the Yes-No format of the vocabulary size test as it does not actually test whether the test taker actually knows a word or not (Nation and Webb 2011, 295–296). The test is based purely on the report of the test taker and relies on the test taker's integrity and self-assessment. These threats to face validity may result in readers of the present study not accepting the results due them believing that the test does not look like a test, or test takers not taking the test seriously when completing it (*ibid.*). Researchers may choose a different test solely based on the threat to face validity but not due to other aspects of reliability, validity, or practicality (Nation and Webb 2011, 296). In fact, the test format is recommended if the threat of face validity is not significant as the tests are in accordance to the critical requirements of a good vocabulary test as any other well-established tests in the academic field (Nation and Webb 2011, 296). When speaking with a few participants after they had completed the tests, it was indicated in their speech that they had taken it seriously. Furthermore, many had completed the optional parts of the connotation test, which requires time and effort that would not be spent by someone who did not care to take the test seriously.

As to address the issue of the test relying solely on the test taker's report, one measure to ensure the reliability of the test was to crosscheck the results with those of the connotation test. Because the tested words in the connotation test were from the

vocabulary size test, it was possible to adjust the vocabulary size test score to be a more accurate one. If the test taker claimed not to know a word but scored perfectly in the connotation test, their score in the vocabulary test would be adjusted accordingly. Moreover, a margin of error, which was seen to be essential during the piloting phase, has been taken into account when estimating the vocabulary knowledge of the participants.

The final research question was to examine if there was a relationship between vocabulary size and the comprehension of connotations. A correlation between vocabulary size and overall connotational knowledge was calculated with the result being that there was either no correlation or a very weak negative one with no statistical significance and a weak strength of relationship ($r = -.051$, $N = 30$, $p > 0.05$). This signifies that either connotational knowledge has no relationship with vocabulary size or that when one of them increases, the other one decreases. These interpretations, however, have a high possibility of being due to chance. Thus, no relationship was found between the two variables. The result may very well have to do with the question of reliability of the associations score, which was discussed earlier on in this section. Because the overall connotation score is made up of the association score, it is naturally also affected by the issue.

The result may indicate one of the following: either there is no relationship between the variables or there is not enough data. If it is the former, data should be acquired in a replicated study in order to gain a more definitive result. If it is the latter, then it is implied that connotations, a part of the depth of vocabulary knowledge, does not have ties to vocabulary size—unlike other studies which have found a positive relationship between vocabulary depth and vocabulary size. In that case, further studies are required to investigate which subcategories of the depth of vocabulary knowledge have a relationship with vocabulary size. Moreover, it would raise the question of whether the depth of vocabulary knowledge should be stated in more specific terms in future studies when presenting results. For example, instead of stating that a relationship was found between the size and depth of vocabulary knowledge, one should state that a relationship was found between the size of vocabulary knowledge and a certain subcategory of the depth of vocabulary knowledge, such as collocations and associations. In this manner, the results are not overgeneralized.

Based on the results, connotation is a complex element to study, which does not initially appear to follow a linear relationship with the use of English during free time. Other factors should be considered, such as the duration of language of instruction being English during one's education and the duration of stay in English speaking countries. It is, however, challenging to form any strong claims about the results, due to the small sample size. What is possible is to demonstrate some potential indications for further research.

Another input of the present study in academic circles is to present a suggestion of a way to test connotational knowledge, which future studies may build upon and improve on. The results in the present study provide constructive measures to improve the reliability of the test. These measures are, for example, to clarify the instructions in the connotation test to ensure comparability between participants and reliability of the test results. The small sample size also affected the results. With a larger sample size, better deductions of the results can be made, and the reliability of the data can be better ensured.

9 Conclusion

Overall, the results of the study were surprising. The aim of the first research question was to discover how similar the comprehension of connotations is between Finnish advanced EFL learners and native speakers in terms of emotions and additional meanings or nuances. In the present study, it was evident that Finnish advanced learners had a close approximation to native learners in understanding the emotional charge of words, or in other words judging whether the words are negative, positive, or neutral. This was so despite the learners reporting that the most challenging part of the tests was choosing the emotional charge of the words. In terms of knowledge of associations and overall connotational knowledge, Finnish learners fully agreed with native learners on less than half of the words in the test.

The second research question was about discovering if there was a relationship between comprehension of connotations and the frequency of using English during free time. Two relationships were revealed: one concerning the comprehension of a word's emotional charge and the other on the knowledge of associations related to a word. There was a slight negative correlation between the frequency of personal communication in English and comprehension of emotional charge of words with the strength of the relationship being modest. There was also positive correlation between knowledge of associations and frequency of watching TV series or movies in English with the relationship's strength being moderate. No conclusive results were found in the relationship between overall connotational comprehension and the use of English during free time. However, the qualitative data of the present study revealed a limitation in the connotation test, which resulted in test takers to choose three different strategies in dealing with the ambiguity of an instruction in the test. This may have distorted the data of the test in terms of knowledge in associations and overall connotational knowledge.

The vocabulary size of the advanced learners was in the same range as that of a native speaker. The English vocabulary size of advanced Finnish learners has also increased in comparison to previous Finnish studies. The third research question of the present study was about whether there was a relationship between vocabulary size and the comprehension of connotations. No relationship was found between vocabulary size and connotational knowledge. This again might be due to the limitations of the study. More data would also be required to have a more definitive result. However, if there

really is no relationship between the two variables, future studies would have to be more specific when examining the depth of vocabulary knowledge and avoid overgeneralizing. For example, instead of stating that a relationship was found between the depth and size of vocabulary knowledge, one should state that a relationship was found between vocabulary size and a certain category of the depth of vocabulary knowledge, such as collocations and associations.

Most of the results were inconclusive due to the small sample size and the ambiguity of the instructions of the connotation test regarding the number of options one must choose. Future research should focus on refining the test and replicating the study with a bigger sample size for more reliable results. The instructions should indicate more clearly on what the test taker should do in terms of choosing the number of associations to gain full points.

It would also be interesting to see if there is a connection between connotational knowledge and the amount of time of being in an English-speaking environment in terms of education in English or staying in an English-speaking country. Furthermore, future studies could focus on partial knowledge of connotations and knowledge of connotations of L2 speakers of other proficiency levels.

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Appendix 1: Questionnaire

Kysely

Täytä kysely parhaasi mukaan.

1. Syntymävuosi: _____
 2. Sukupuoli: _____
 3. Äidinkieli/kielet: _____
 4. Valitse yksi vaihtoehto:
 - a) Olen englannin kielen pääaineopintojeni maisterivaiheella ja arvioitu valmistumisaikani on vuonna: _____
 - b) Pääaineeni oli englannin kieli ja valmistuin maisteriksi vuonna: _____
 5. Olen nykyään päätoimisesti... (valitse yksi vaihtoehto)
 - a) Opiskelija: oppilaitos _____, pääaine _____
Opiskelukieli/opiskelukielet: _____
 - b) Työssäkäyvä: ammatti _____
Työkieli/työkielet: _____
 - c) Muu, mitä? _____
Käytän tätä kieltä/näitä kieliä: _____
 6. a) Kuinka monta vuotta olet opiskellut englantia suomenkielisessä koulussa? _____
b) Kuinka monta vuotta olet opiskellut englanninkielisessä luokassa/koulussa? _____
 7. Arvioi kuinka kauan yhteensä olet oleskellut englanninkielisissä maissa, kaikki vierailut mukaan lukien (1 viikko = 0.25 kuukautta): _____ vuotta _____ kuukautta
 8. Mikä on pisin yksittäinen oleskelusi englanninkielisessä maassa? _____ vuotta _____ kuukautta
-

Osa 1: Englannin kielen käyttötottumukset

Ympyröi sinulle sopivin vaihtoehto.

1. Kuinka usein kommunikoit englanniksi vapaa-aikanasi? (käytät englantia pääkielenä kirjoitetussa tai puhutussa keskustelussa)

- a) joka päivä
- b) muutaman kerran viikossa
- c) muutaman kerran kuukaudessa
- d) kerran kuukaudessa
- e) harvemmin kuin kerran kuukaudessa

2. Kuinka usein luet englanninkielisiä sanomalehtiä, aikakauslehtiä, blogeja, tai muuta samankaltaista ei-fiktiivistä kirjallisuutta (painettu tai elektroninen)?

- a) joka päivä
- b) pari kertaa viikossa
- c) pari kertaa kuukaudessa
- d) kerran kuukaudessa
- e) harvemmin kuin kerran kuukaudessa

3. Kuinka usein luet englanninkielistä kirjallisuutta vapaa-aikanasi (kurssikirjoja lukuun ottamatta)?

- a) joka päivä
- b) pari kertaa viikossa
- c) pari kertaa kuukaudessa
- d) kerran kuukaudessa
- e) harvemmin kuin kerran kuukaudessa

4. Kuinka usein kuuntelet englanninkielistä musiikkia vapaa-aikanasi?

- a) joka päivä
- b) pari kertaa viikossa
- c) pari kertaa kuukaudessa
- d) kerran kuukaudessa
- e) harvemmin kuin kerran kuukaudessa

5. Kuinka usein katsot englanninkielisiä TV-sarjoja ja elokuvia?

- a) joka päivä
- b) pari kertaa viikossa
- c) pari kertaa kuukaudessa
- d) kerran kuukaudessa
- e) harvemmin kuin kerran kuukaudessa

6. Kuinka usein pelaat englanninkielisiä pelejä? (konsolipelit, tietokonepelit, lautapelit, roolipelit yms.)

- a) joka päivä
- b) pari kertaa viikossa
- c) pari kertaa kuukaudessa
- d) kerran kuukaudessa
- e) harvemmin kuin kerran kuukaudessa

7. Kuinka usein tarkistat englanninkielisten sanojen merkitystä sanakirjasta tai käännösohjelmista vapaa-aikanasi? (myös netistä tarkistaminen ja sovellukset lasketaan mukaan)

- a) joka päivä
- b) pari kertaa viikossa
- c) pari kertaa kuukaudessa
- d) kerran kuukaudessa
- e) harvemmin kuin kerran kuukaudessa

Appendix 2: English translation of the questionnaire

Questionnaire

Fill in the questionnaire to the best of your ability.

1. Year of birth: _____
 2. Gender/Sex: _____
 3. Mother tongue(s): _____
 4. Choose one option:
 - a) I am an English major doing my Master's studies and my estimated year of graduation is: _____
 - b) My major is English and I graduated in the year of: _____
 5. I am currently primarily... (choose one option)
 - a) Student: educational institution _____, study major _____
Language(s) of instruction: _____
 - b) Employed: profession _____
Working language(s): _____
 - c) Other, what? _____
I use this/these language(s): _____
 6. a) How many years have you studied English in a Finnish speaking school? _____
b) How many years have you studied in an English-speaking school/class? _____
 7. Estimate in total how long have you been in an English-speaking country, including all visits (*1 week=0.25 months*): _____ year(s) _____ month(s)
 8. How long is your longest continuous stay in an English-speaking country? _____ year(s) _____ month(s)
-

Osa 1: Habits in using English

Circle the option that describes you the best.

1. How often do you communicate in English during your free time? (you primarily use English in written or spoken conversation)

- a) every day
- b) a few times a week
- c) a few times a month
- d) once a month
- e) less than once a month

2. How often do you read newspapers, journals, blogs, or other similar non-fiction in English (printed or electronic)?

- a) every day
- b) a few times a week
- c) a few times a month
- d) once a month
- e) less than once a month

3. How often do you read fiction in English during your free time (not including course books)?

- a) every day
- b) a few times a week
- c) a few times a month
- d) once a month
- e) less than once a month

4. How often do you listen to music in English during your free time?

- a) every day
- b) a few times a week
- c) a few times a month
- d) once a month
- e) less than once a month

5. How often do you watch TV-series or movies in English?

- a) every day
- b) a few times a week
- c) a few times a month
- d) once a month
- e) less than once a month

6. How often do you play games in English? (console games, computer games, boardgames, role play, etc.)

- a) every day
- b) a few times a week
- c) a few times a month
- d) once a month
- e) less than once a month

7. How often do you look up English words in a dictionary or a translation program during your free time? (also including apps and looking up online)

- a) every day
- b) a few times a week
- c) a few times a month
- d) once a month
- e) less than once a month

Appendix 3: Vocabulary size test

Sanavarastotesti

Ohjeet:

1) Merkitse ruksilla (X) ne sanat, joista tiedät ainakin yhden merkityksen. Jos et ole varma jostain sanasta, älä merkitse sitä.

2) Kaikki sanat esiintyvät taipumattomina muotoina. Esimerkiksi tässä testissä sana ”hunting” ei katsota olevan ”hunt” sanan taipunut muoto vaan se on erillinen sana itsessään.

3) Tässä testissä monisanaiset yksiköt (esim. ’adventure playground’) kohdellaan yhtenä sanana eikä erillisinä sanoina.

ADVENTURE PLAYGROUND	
AIR CONDITIONER	
AMERICAN FOOTBALL	
ANYPLACE	
ARMBAND	
ASSURED	
BABBLE	
BANG	
BAZAAR	
BELONGINGS	
BIRDCAGE	
BLOOMERS	
BOOZE	
BREAK-IN	
B-SIDE	
BUTANE	
CANDIDATURE	
CASH DISPENSER	
CHAIN UP	
CHICANERY	
CLAMP	
CLOWNISH	
COLOUR IN	
COMPARABLE	
CONE	
CONSUMPTIVE	
COPYIST	
COURT	
CRITIQUE	
CURVED	
DAYDREAM	
DEFEATISM	
DEPLORE	
DIADEM	
DISASTER AREA	
DISSOLVE	
DONKEY	
DREADED	

DURATION	
EFFECTIVE	
ENACTMENT	
ENVIRONS	
EVERYONE	
EXPIRY	
FACE PACK	
FAST	
FIDDLE AROUND	
FIRMAMENT	
FLINT	
FOOTLOOSE	
FOWL	
FUDDY-DUDDY	
GARLIC	
GIANT-KILLING	
GOAT	
GRATEFUL	
GUIDE	
HAND OUT	
HAVE	
HELP OFF WITH	
HIVE	
HORIZON	
HUNTING	
IMITATE	
INCLUDED	
INFRASTRUCTURE	
INTENDED	
IODINE	
JOINTED	
KIDNEY	
LAGER	
LAZY	
LET DOWN	
LIKE-MINDED	
LOCAL TIME	
LOWBROW	

MAKE	
MARK OUT	
MEAN	
METAPHORICAL	
MINTED	
MONARCHICAL	
MOVE OUT	
NAMELESS	
NET	
NON-PARTISAN	
NYLON	
OFF-MESSAGE	
OPEN UP	
OUT	
OVERSTATEMENT	
OWN UP	
PAST PARTICIPLE	
PENIS	
PETUNIA	
PIONEERING	
PLEASED	
POLLING STATION	
POWDER BLUE	
PRESIDENTIAL	
PRODUCTION LINE	
PRUDE	
PUSTULE	
RABBI	
RATHER	
RECEPTIVE	
REFUTATION	
RENDERING	
RESPONDENT	
RHYTHM AND BLUES	
ROCK GARDEN	
RUBBISHY	
SADISTIC	
SCALD	
SELF-CENTRED	
SERVICEABLE	
SHEAF	
SHOWER	
SIMULTANEOUS	
SLICE UP	
SNORT	
SORTING OFFICE	
SPICE	
SQUEAKY CLEAN	

STAVE OFF	
STORE	
STRONG-ARM	
SUFFERING	
SURREALISM	
SYSTEMATIC	
TAPER OFF	
TEN-PIN BOWLING	
THICKSET/THICK-SET	
THUG	
TO	
TOWEL	
TREASURY	
TUNE IN	
UNASSAILABLE	
UNENVIABLE	
UNRELIABLE	
URINARY	
VESTIBULE	
WAGE PACKET	
WAVE ASIDE	
WELL-ENDOWED	
WHOPPER	
WITNESS STAND	
WOUND UP	

Appendix 4: Translation of the instructions of the vocabulary size test

Vocabulary size test

Instructions:

- 1) Mark with an X the words, of which you know at least one meaning. If you are unsure of some word, do not mark it.
- 2) All the words presented in this test are in their base form. For example, the word “hunting” is not viewed as being the conjugated form of the word “hunt”; it is a separate word in itself.
- 3) In this text, multiword units (e.g. ‘adventure playground’) are treated as one word and not as separate words.

Appendix 5: Connotation test

Konnotaatiotesti

Konnotaatio on sanan lisämerkitys tai sen herättämä mielleyhtymä. Konnotaatio voi olla positiivinen, neutraali tai negatiivinen. Esimerkiksi sanalla 'säästäväinen' on positiivinen konnotaatio, kun taas sanalla 'pihi' se on negatiivinen. Sanalla 'säästäväinen' voi olla konnotaationa kaukokatseisuus, kun taas 'pihi' voi tuoda mieleen ahneus ja itsekkyyys.

Älä tarkista sanojen merkitystä sanakirjasta tai netistä. Luota omaan intuitioosi. Vastausten ei tarvitse olla oikein, sillä testin tarkoituksena on kartoittaa teidän intuitionne. Käytä noin 30 sekuntia jokaisen sanan kohdalla.

Ohjeet:

- 1) Merkitse rastilla (X) yhteensä 4 asiaa, jotka mielestäsi liittyvät alleviivattuun sanaan. Jos et ole varma, voit merkata vähemmän kuin 4 asiaa.
- 2) Onko kyseisellä sanalla on positiivinen, neutraali vai negatiivinen mielleyhtymä (konnotaatio)? Merkitse valitsemasi vaihtoehto rastilla (X).
- 3) Jos sinulle tulee alleviivatusta sanasta mieleen joku muu sana tai asia, jota ei ole listattu, voit kirjoittaa ne ylös **Jotain muuta?** -kohdan alle.
- 4) Jos et tunne alleviivattua sanaa, jätä siihen vastaaminen väliin ja siirry seuraavaan kohtaan.
- 5) Jos et tunne jotain laatikoiden sisällä olevista sanoista, merkitse kysymysmerkki (?) sen sanan viereen.
- 6) Viimeisenä on testin valinnainen osio, jonne voit kirjoittaa vapaasti ajatuksiasi näistä testeistä.

Esimerkki:

1. That person is scrawny.

- | | |
|---|--|
| <input checked="" type="checkbox"/> boney | <input type="checkbox"/> lovely |
| <input type="checkbox"/> whiney | <input checked="" type="checkbox"/> unhealthy |
| <input checked="" type="checkbox"/> thin | <input type="checkbox"/> loud |
| <input type="checkbox"/> talkative | <input checked="" type="checkbox"/> undernourished |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

unattractive, skinny

<p>1. My classmate was <u>mean</u> to me.</p> <table border="1" data-bbox="268 293 786 434"> <tbody> <tr> <td><input type="checkbox"/> unfriendly</td> <td><input type="checkbox"/> humble</td> </tr> <tr> <td><input type="checkbox"/> average</td> <td><input type="checkbox"/> bullying</td> </tr> <tr> <td><input type="checkbox"/> normal</td> <td><input type="checkbox"/> inferior</td> </tr> <tr> <td><input type="checkbox"/> rude</td> <td><input type="checkbox"/> insulting</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> unfriendly	<input type="checkbox"/> humble	<input type="checkbox"/> average	<input type="checkbox"/> bullying	<input type="checkbox"/> normal	<input type="checkbox"/> inferior	<input type="checkbox"/> rude	<input type="checkbox"/> insulting	<p>2. They drank a lot of <u>booze</u>.</p> <table border="1" data-bbox="855 293 1369 434"> <tbody> <tr> <td><input type="checkbox"/> alcohol</td> <td><input type="checkbox"/> sweet</td> </tr> <tr> <td><input type="checkbox"/> juice</td> <td><input type="checkbox"/> party</td> </tr> <tr> <td><input type="checkbox"/> alcoholic drink</td> <td><input type="checkbox"/> picnic</td> </tr> <tr> <td><input type="checkbox"/> soda</td> <td><input type="checkbox"/> drunkenness</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> alcohol	<input type="checkbox"/> sweet	<input type="checkbox"/> juice	<input type="checkbox"/> party	<input type="checkbox"/> alcoholic drink	<input type="checkbox"/> picnic	<input type="checkbox"/> soda	<input type="checkbox"/> drunkenness
<input type="checkbox"/> unfriendly	<input type="checkbox"/> humble																
<input type="checkbox"/> average	<input type="checkbox"/> bullying																
<input type="checkbox"/> normal	<input type="checkbox"/> inferior																
<input type="checkbox"/> rude	<input type="checkbox"/> insulting																
<input type="checkbox"/> alcohol	<input type="checkbox"/> sweet																
<input type="checkbox"/> juice	<input type="checkbox"/> party																
<input type="checkbox"/> alcoholic drink	<input type="checkbox"/> picnic																
<input type="checkbox"/> soda	<input type="checkbox"/> drunkenness																
<p>3. They tend to <u>babble</u> amongst themselves.</p> <table border="1" data-bbox="304 680 786 822"> <tbody> <tr> <td><input type="checkbox"/> gossip</td> <td><input type="checkbox"/> insulting</td> </tr> <tr> <td><input type="checkbox"/> laugh</td> <td><input type="checkbox"/> excited</td> </tr> <tr> <td><input type="checkbox"/> chatter</td> <td><input type="checkbox"/> talkative</td> </tr> <tr> <td><input type="checkbox"/> fight</td> <td><input type="checkbox"/> argumentative</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> gossip	<input type="checkbox"/> insulting	<input type="checkbox"/> laugh	<input type="checkbox"/> excited	<input type="checkbox"/> chatter	<input type="checkbox"/> talkative	<input type="checkbox"/> fight	<input type="checkbox"/> argumentative	<p>4. That person was <u>lazy</u>.</p> <table border="1" data-bbox="890 680 1369 822"> <tbody> <tr> <td><input type="checkbox"/> asleep</td> <td><input type="checkbox"/> poor</td> </tr> <tr> <td><input type="checkbox"/> sleepy</td> <td><input type="checkbox"/> unmotivated</td> </tr> <tr> <td><input type="checkbox"/> careless</td> <td><input type="checkbox"/> insomniac</td> </tr> <tr> <td><input type="checkbox"/> inactive</td> <td><input type="checkbox"/> uninterested</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> asleep	<input type="checkbox"/> poor	<input type="checkbox"/> sleepy	<input type="checkbox"/> unmotivated	<input type="checkbox"/> careless	<input type="checkbox"/> insomniac	<input type="checkbox"/> inactive	<input type="checkbox"/> uninterested
<input type="checkbox"/> gossip	<input type="checkbox"/> insulting																
<input type="checkbox"/> laugh	<input type="checkbox"/> excited																
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<input type="checkbox"/> fight	<input type="checkbox"/> argumentative																
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<input type="checkbox"/> careless	<input type="checkbox"/> insomniac																
<input type="checkbox"/> inactive	<input type="checkbox"/> uninterested																
<p>5. That person is considered a <u>prude</u>.</p> <table border="1" data-bbox="268 1070 786 1211"> <tbody> <tr> <td><input type="checkbox"/> rude</td> <td><input type="checkbox"/> extremely conservative</td> </tr> <tr> <td><input type="checkbox"/> wrinkled</td> <td><input type="checkbox"/> stuck up</td> </tr> <tr> <td><input type="checkbox"/> quiet</td> <td><input type="checkbox"/> uptight</td> </tr> <tr> <td><input type="checkbox"/> modest</td> <td><input type="checkbox"/> ugly</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> rude	<input type="checkbox"/> extremely conservative	<input type="checkbox"/> wrinkled	<input type="checkbox"/> stuck up	<input type="checkbox"/> quiet	<input type="checkbox"/> uptight	<input type="checkbox"/> modest	<input type="checkbox"/> ugly	<p>6. I want everything <u>squeaky clean</u>!</p> <table border="1" data-bbox="890 1070 1369 1211"> <tbody> <tr> <td><input type="checkbox"/> spotless</td> <td><input type="checkbox"/> white</td> </tr> <tr> <td><input type="checkbox"/> pristine</td> <td><input type="checkbox"/> toy</td> </tr> <tr> <td><input type="checkbox"/> noisy</td> <td><input type="checkbox"/> shiny</td> </tr> <tr> <td><input type="checkbox"/> loud</td> <td><input type="checkbox"/> soap</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> spotless	<input type="checkbox"/> white	<input type="checkbox"/> pristine	<input type="checkbox"/> toy	<input type="checkbox"/> noisy	<input type="checkbox"/> shiny	<input type="checkbox"/> loud	<input type="checkbox"/> soap
<input type="checkbox"/> rude	<input type="checkbox"/> extremely conservative																
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<input type="checkbox"/> noisy	<input type="checkbox"/> shiny																
<input type="checkbox"/> loud	<input type="checkbox"/> soap																
<p>7. My <u>dreaded</u> appointment is tomorrow.</p> <table border="1" data-bbox="304 1460 786 1601"> <tbody> <tr> <td><input type="checkbox"/> alarming</td> <td><input type="checkbox"/> uncomfortable</td> </tr> <tr> <td><input type="checkbox"/> important</td> <td><input type="checkbox"/> anticipation</td> </tr> <tr> <td><input type="checkbox"/> necessary</td> <td><input type="checkbox"/> anxiety</td> </tr> <tr> <td><input type="checkbox"/> feared</td> <td><input type="checkbox"/> excitement</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> alarming	<input type="checkbox"/> uncomfortable	<input type="checkbox"/> important	<input type="checkbox"/> anticipation	<input type="checkbox"/> necessary	<input type="checkbox"/> anxiety	<input type="checkbox"/> feared	<input type="checkbox"/> excitement	<p>8. He is a <u>thug</u>.</p> <table border="1" data-bbox="890 1460 1369 1601"> <tbody> <tr> <td><input type="checkbox"/> soldier</td> <td><input type="checkbox"/> criminal</td> </tr> <tr> <td><input type="checkbox"/> warrior</td> <td><input type="checkbox"/> gangster</td> </tr> <tr> <td><input type="checkbox"/> protestor</td> <td><input type="checkbox"/> tough</td> </tr> <tr> <td><input type="checkbox"/> hooligan</td> <td><input type="checkbox"/> war</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> soldier	<input type="checkbox"/> criminal	<input type="checkbox"/> warrior	<input type="checkbox"/> gangster	<input type="checkbox"/> protestor	<input type="checkbox"/> tough	<input type="checkbox"/> hooligan	<input type="checkbox"/> war
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<input type="checkbox"/> necessary	<input type="checkbox"/> anxiety																
<input type="checkbox"/> feared	<input type="checkbox"/> excitement																
<input type="checkbox"/> soldier	<input type="checkbox"/> criminal																
<input type="checkbox"/> warrior	<input type="checkbox"/> gangster																
<input type="checkbox"/> protestor	<input type="checkbox"/> tough																
<input type="checkbox"/> hooligan	<input type="checkbox"/> war																

9. She is sadistic.

- | | |
|------------------------------------|---------------------------------------|
| <input type="checkbox"/> cruel | <input type="checkbox"/> psychopath |
| <input type="checkbox"/> perverted | <input type="checkbox"/> manipulative |
| <input type="checkbox"/> naive | <input type="checkbox"/> sexual |
| <input type="checkbox"/> careful | <input type="checkbox"/> weak |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

10. He felt assured that everything was alright.

- | | |
|------------------------------------|--------------------------------------|
| <input type="checkbox"/> confident | <input type="checkbox"/> inspiration |
| <input type="checkbox"/> certain | <input type="checkbox"/> doubt |
| <input type="checkbox"/> unsure | <input type="checkbox"/> optimism |
| <input type="checkbox"/> convinced | <input type="checkbox"/> fearless |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

11. I like to play American football.

- | | |
|--|------------------------------------|
| <input type="checkbox"/> rugby | <input type="checkbox"/> rough |
| <input type="checkbox"/> soccer | <input type="checkbox"/> sports TV |
| <input type="checkbox"/> baseball | <input type="checkbox"/> popular |
| <input type="checkbox"/> football (in the U.S) | <input type="checkbox"/> cool |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

12. They often seemed clownish.

- | | |
|------------------------------------|---------------------------------|
| <input type="checkbox"/> funny | <input type="checkbox"/> joker |
| <input type="checkbox"/> foolish | <input type="checkbox"/> circus |
| <input type="checkbox"/> forgetful | <input type="checkbox"/> clown |
| <input type="checkbox"/> humorous | <input type="checkbox"/> scary |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

13. I am pleased to hear that.

- | | |
|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> happy | <input type="checkbox"/> insincere |
| <input type="checkbox"/> glad | <input type="checkbox"/> fake |
| <input type="checkbox"/> satisfied | <input type="checkbox"/> overjoy |
| <input type="checkbox"/> appreciative | <input type="checkbox"/> enthusiastic |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

14. Reality TV shows are rubbishy.

- | | |
|--------------------------------------|------------------------------------|
| <input type="checkbox"/> inferior | <input type="checkbox"/> popular |
| <input type="checkbox"/> trashy | <input type="checkbox"/> fake |
| <input type="checkbox"/> second-rate | <input type="checkbox"/> addictive |
| <input type="checkbox"/> worthless | <input type="checkbox"/> funny |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

15. I want to ease their suffering.

- | | |
|--------------------------------------|-------------------------------------|
| <input type="checkbox"/> pain | <input type="checkbox"/> insane |
| <input type="checkbox"/> hardship | <input type="checkbox"/> poverty |
| <input type="checkbox"/> frustration | <input type="checkbox"/> victim |
| <input type="checkbox"/> impression | <input type="checkbox"/> psychiatry |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

16. You were self-centred.

- | | |
|--|------------------------------------|
| <input type="checkbox"/> self-absorbed | <input type="checkbox"/> stuck-up |
| <input type="checkbox"/> relaxed | <input type="checkbox"/> fake |
| <input type="checkbox"/> egocentric | <input type="checkbox"/> stable |
| <input type="checkbox"/> selfish | <input type="checkbox"/> important |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

17. Some nameless people had a lot to say.

- | | |
|---------------------------------------|-------------------------------------|
| <input type="checkbox"/> unhappy | <input type="checkbox"/> doubtful |
| <input type="checkbox"/> unknown | <input type="checkbox"/> secret |
| <input type="checkbox"/> unidentified | <input type="checkbox"/> cryptic |
| <input type="checkbox"/> anonymous | <input type="checkbox"/> indecisive |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

18. They deplore violence.

- | | |
|---|-----------------------------------|
| <input type="checkbox"/> disapproves of | <input type="checkbox"/> complain |
| <input type="checkbox"/> support | <input type="checkbox"/> hate |
| <input type="checkbox"/> condemn | <input type="checkbox"/> sad |
| <input type="checkbox"/> approve | <input type="checkbox"/> violent |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

19. That person was thickset.

- | | |
|--|---------------------------------------|
| <input type="checkbox"/> stocky | <input type="checkbox"/> numerous |
| <input type="checkbox"/> solid | <input type="checkbox"/> impenetrable |
| <input type="checkbox"/> fat | <input type="checkbox"/> heavy |
| <input type="checkbox"/> heavily built | <input type="checkbox"/> short |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

20. That person is well-endowed.

- | | |
|--------------------------------------|--|
| <input type="checkbox"/> resourceful | <input type="checkbox"/> large breasts |
| <input type="checkbox"/> successful | <input type="checkbox"/> large penis |
| <input type="checkbox"/> tall | <input type="checkbox"/> productive |
| <input type="checkbox"/> thin | <input type="checkbox"/> rich |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

21. Our donkey is stubborn.

- | | |
|----------------------------------|-----------------------------------|
| <input type="checkbox"/> horse | <input type="checkbox"/> funny |
| <input type="checkbox"/> ass | <input type="checkbox"/> stupid |
| <input type="checkbox"/> jackass | <input type="checkbox"/> stubborn |
| <input type="checkbox"/> boss | <input type="checkbox"/> smart |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

22. In the morning, it's a hive of activity here.

- | | |
|-------------------------------------|--------------------------------------|
| <input type="checkbox"/> cave | <input type="checkbox"/> rumours |
| <input type="checkbox"/> center | <input type="checkbox"/> suffocating |
| <input type="checkbox"/> structure | <input type="checkbox"/> crowded |
| <input type="checkbox"/> powerhouse | <input type="checkbox"/> productive |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

23. You should add some spice to your life.

- | | |
|-----------------------------------|------------------------------------|
| <input type="checkbox"/> flavour | <input type="checkbox"/> fun |
| <input type="checkbox"/> prestige | <input type="checkbox"/> adventure |
| <input type="checkbox"/> passion | <input type="checkbox"/> deadly |
| <input type="checkbox"/> power | <input type="checkbox"/> risk |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

24. I was wound up after that argument.

- | | |
|-----------------------------------|-----------------------------------|
| <input type="checkbox"/> tense | <input type="checkbox"/> hurt |
| <input type="checkbox"/> agitated | <input type="checkbox"/> stress |
| <input type="checkbox"/> anxious | <input type="checkbox"/> pain |
| <input type="checkbox"/> bleeding | <input type="checkbox"/> finished |

Negatiivinen Neutraali Positiivinen

Jotain muuta?

<p>25. I had a <u>daydream</u> during class.</p> <table border="1" data-bbox="304 322 783 465"> <tbody> <tr> <td><input type="checkbox"/> nap</td> <td><input type="checkbox"/> spaced out</td> </tr> <tr> <td><input type="checkbox"/> gift</td> <td><input type="checkbox"/> bored</td> </tr> <tr> <td><input type="checkbox"/> fantasy</td> <td><input type="checkbox"/> creative</td> </tr> <tr> <td><input type="checkbox"/> test</td> <td><input type="checkbox"/> ambition</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> nap	<input type="checkbox"/> spaced out	<input type="checkbox"/> gift	<input type="checkbox"/> bored	<input type="checkbox"/> fantasy	<input type="checkbox"/> creative	<input type="checkbox"/> test	<input type="checkbox"/> ambition	<p>26. That person is an <u>unreliable</u> employee.</p> <table border="1" data-bbox="855 322 1366 465"> <tbody> <tr> <td><input type="checkbox"/> weak</td> <td><input type="checkbox"/> dramatic</td> </tr> <tr> <td><input type="checkbox"/> undependable</td> <td><input type="checkbox"/> lazy</td> </tr> <tr> <td><input type="checkbox"/> inconstant</td> <td><input type="checkbox"/> untrustworthy</td> </tr> <tr> <td><input type="checkbox"/> unfaithful</td> <td><input type="checkbox"/> fake</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> weak	<input type="checkbox"/> dramatic	<input type="checkbox"/> undependable	<input type="checkbox"/> lazy	<input type="checkbox"/> inconstant	<input type="checkbox"/> untrustworthy	<input type="checkbox"/> unfaithful	<input type="checkbox"/> fake
<input type="checkbox"/> nap	<input type="checkbox"/> spaced out																
<input type="checkbox"/> gift	<input type="checkbox"/> bored																
<input type="checkbox"/> fantasy	<input type="checkbox"/> creative																
<input type="checkbox"/> test	<input type="checkbox"/> ambition																
<input type="checkbox"/> weak	<input type="checkbox"/> dramatic																
<input type="checkbox"/> undependable	<input type="checkbox"/> lazy																
<input type="checkbox"/> inconstant	<input type="checkbox"/> untrustworthy																
<input type="checkbox"/> unfaithful	<input type="checkbox"/> fake																
<p>27. I <u>let down</u> my parents.</p> <table border="1" data-bbox="304 710 783 853"> <tbody> <tr> <td><input type="checkbox"/> disappointed</td> <td><input type="checkbox"/> promise</td> </tr> <tr> <td><input type="checkbox"/> revealed</td> <td><input type="checkbox"/> trust</td> </tr> <tr> <td><input type="checkbox"/> allowed</td> <td><input type="checkbox"/> sad</td> </tr> <tr> <td><input type="checkbox"/> shocked</td> <td><input type="checkbox"/> honor</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> disappointed	<input type="checkbox"/> promise	<input type="checkbox"/> revealed	<input type="checkbox"/> trust	<input type="checkbox"/> allowed	<input type="checkbox"/> sad	<input type="checkbox"/> shocked	<input type="checkbox"/> honor	<p>28. Can you <u>make</u> that?</p> <table border="1" data-bbox="887 710 1366 853"> <tbody> <tr> <td><input type="checkbox"/> create</td> <td><input type="checkbox"/> helpful</td> </tr> <tr> <td><input type="checkbox"/> build</td> <td><input type="checkbox"/> measurement</td> </tr> <tr> <td><input type="checkbox"/> construct</td> <td><input type="checkbox"/> creative</td> </tr> <tr> <td><input type="checkbox"/> put together</td> <td><input type="checkbox"/> valuable</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> create	<input type="checkbox"/> helpful	<input type="checkbox"/> build	<input type="checkbox"/> measurement	<input type="checkbox"/> construct	<input type="checkbox"/> creative	<input type="checkbox"/> put together	<input type="checkbox"/> valuable
<input type="checkbox"/> disappointed	<input type="checkbox"/> promise																
<input type="checkbox"/> revealed	<input type="checkbox"/> trust																
<input type="checkbox"/> allowed	<input type="checkbox"/> sad																
<input type="checkbox"/> shocked	<input type="checkbox"/> honor																
<input type="checkbox"/> create	<input type="checkbox"/> helpful																
<input type="checkbox"/> build	<input type="checkbox"/> measurement																
<input type="checkbox"/> construct	<input type="checkbox"/> creative																
<input type="checkbox"/> put together	<input type="checkbox"/> valuable																
<p>29. My sister likes to <u>imitate</u> me.</p> <table border="1" data-bbox="304 1097 783 1240"> <tbody> <tr> <td><input type="checkbox"/> impersonate</td> <td><input type="checkbox"/> admiration</td> </tr> <tr> <td><input type="checkbox"/> borrow</td> <td><input type="checkbox"/> falsify</td> </tr> <tr> <td><input type="checkbox"/> chase</td> <td><input type="checkbox"/> annoying</td> </tr> <tr> <td><input type="checkbox"/> mimic</td> <td><input type="checkbox"/> forge</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> impersonate	<input type="checkbox"/> admiration	<input type="checkbox"/> borrow	<input type="checkbox"/> falsify	<input type="checkbox"/> chase	<input type="checkbox"/> annoying	<input type="checkbox"/> mimic	<input type="checkbox"/> forge	<p>30. Don't <u>bang</u> on the door.</p> <table border="1" data-bbox="887 1097 1366 1240"> <tbody> <tr> <td><input type="checkbox"/> pound</td> <td><input type="checkbox"/> lean on</td> </tr> <tr> <td><input type="checkbox"/> shoot</td> <td><input type="checkbox"/> emotional</td> </tr> <tr> <td><input type="checkbox"/> tap</td> <td><input type="checkbox"/> destruction</td> </tr> <tr> <td><input type="checkbox"/> hit</td> <td><input type="checkbox"/> loud</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> pound	<input type="checkbox"/> lean on	<input type="checkbox"/> shoot	<input type="checkbox"/> emotional	<input type="checkbox"/> tap	<input type="checkbox"/> destruction	<input type="checkbox"/> hit	<input type="checkbox"/> loud
<input type="checkbox"/> impersonate	<input type="checkbox"/> admiration																
<input type="checkbox"/> borrow	<input type="checkbox"/> falsify																
<input type="checkbox"/> chase	<input type="checkbox"/> annoying																
<input type="checkbox"/> mimic	<input type="checkbox"/> forge																
<input type="checkbox"/> pound	<input type="checkbox"/> lean on																
<input type="checkbox"/> shoot	<input type="checkbox"/> emotional																
<input type="checkbox"/> tap	<input type="checkbox"/> destruction																
<input type="checkbox"/> hit	<input type="checkbox"/> loud																
<p>31. My parents are <u>like-minded</u>.</p> <table border="1" data-bbox="304 1456 783 1599"> <tbody> <tr> <td><input type="checkbox"/> compatible</td> <td><input type="checkbox"/> shared values</td> </tr> <tr> <td><input type="checkbox"/> agreeing</td> <td><input type="checkbox"/> composed</td> </tr> <tr> <td><input type="checkbox"/> harmonious</td> <td><input type="checkbox"/> well-adjusted</td> </tr> <tr> <td><input type="checkbox"/> smart</td> <td><input type="checkbox"/> likeable</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> compatible	<input type="checkbox"/> shared values	<input type="checkbox"/> agreeing	<input type="checkbox"/> composed	<input type="checkbox"/> harmonious	<input type="checkbox"/> well-adjusted	<input type="checkbox"/> smart	<input type="checkbox"/> likeable	<p>32. You should <u>own up</u> to your mistakes.</p> <table border="1" data-bbox="887 1456 1366 1599"> <tbody> <tr> <td><input type="checkbox"/> have</td> <td><input type="checkbox"/> mysterious</td> </tr> <tr> <td><input type="checkbox"/> increase</td> <td><input type="checkbox"/> accountability</td> </tr> <tr> <td><input type="checkbox"/> admit</td> <td><input type="checkbox"/> dishonesty</td> </tr> <tr> <td><input type="checkbox"/> confess</td> <td><input type="checkbox"/> favour</td> </tr> </tbody> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> have	<input type="checkbox"/> mysterious	<input type="checkbox"/> increase	<input type="checkbox"/> accountability	<input type="checkbox"/> admit	<input type="checkbox"/> dishonesty	<input type="checkbox"/> confess	<input type="checkbox"/> favour
<input type="checkbox"/> compatible	<input type="checkbox"/> shared values																
<input type="checkbox"/> agreeing	<input type="checkbox"/> composed																
<input type="checkbox"/> harmonious	<input type="checkbox"/> well-adjusted																
<input type="checkbox"/> smart	<input type="checkbox"/> likeable																
<input type="checkbox"/> have	<input type="checkbox"/> mysterious																
<input type="checkbox"/> increase	<input type="checkbox"/> accountability																
<input type="checkbox"/> admit	<input type="checkbox"/> dishonesty																
<input type="checkbox"/> confess	<input type="checkbox"/> favour																

<p>33. There has been a <u>break in</u>.</p> <table border="1" data-bbox="248 293 783 434"> <tr> <td><input type="checkbox"/> break and entry</td> <td><input type="checkbox"/> escape</td> </tr> <tr> <td><input type="checkbox"/> burglary</td> <td><input type="checkbox"/> violent</td> </tr> <tr> <td><input type="checkbox"/> breakfast inn</td> <td><input type="checkbox"/> crime</td> </tr> <tr> <td><input type="checkbox"/> motel</td> <td><input type="checkbox"/> poaching</td> </tr> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> break and entry	<input type="checkbox"/> escape	<input type="checkbox"/> burglary	<input type="checkbox"/> violent	<input type="checkbox"/> breakfast inn	<input type="checkbox"/> crime	<input type="checkbox"/> motel	<input type="checkbox"/> poaching	<p>34. That is an <u>overstatement!</u></p> <table border="1" data-bbox="852 293 1366 434"> <tr> <td><input type="checkbox"/> exaggeration</td> <td><input type="checkbox"/> emphasis</td> </tr> <tr> <td><input type="checkbox"/> overestimation</td> <td><input type="checkbox"/> excess</td> </tr> <tr> <td><input type="checkbox"/> embellishment</td> <td><input type="checkbox"/> funny</td> </tr> <tr> <td><input type="checkbox"/> joke</td> <td><input type="checkbox"/> caricature</td> </tr> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> exaggeration	<input type="checkbox"/> emphasis	<input type="checkbox"/> overestimation	<input type="checkbox"/> excess	<input type="checkbox"/> embellishment	<input type="checkbox"/> funny	<input type="checkbox"/> joke	<input type="checkbox"/> caricature
<input type="checkbox"/> break and entry	<input type="checkbox"/> escape																
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<input type="checkbox"/> exaggeration	<input type="checkbox"/> emphasis																
<input type="checkbox"/> overestimation	<input type="checkbox"/> excess																
<input type="checkbox"/> embellishment	<input type="checkbox"/> funny																
<input type="checkbox"/> joke	<input type="checkbox"/> caricature																
<p>35. That situation was <u>comparable</u> to mine.</p> <table border="1" data-bbox="304 685 783 826"> <tr> <td><input type="checkbox"/> similar</td> <td><input type="checkbox"/> identical</td> </tr> <tr> <td><input type="checkbox"/> equal to</td> <td><input type="checkbox"/> indistinguishable</td> </tr> <tr> <td><input type="checkbox"/> contrasting</td> <td><input type="checkbox"/> similarities</td> </tr> <tr> <td><input type="checkbox"/> alike</td> <td><input type="checkbox"/> reproduction</td> </tr> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> similar	<input type="checkbox"/> identical	<input type="checkbox"/> equal to	<input type="checkbox"/> indistinguishable	<input type="checkbox"/> contrasting	<input type="checkbox"/> similarities	<input type="checkbox"/> alike	<input type="checkbox"/> reproduction	<p>36. Males have a <u>penis</u>.</p> <table border="1" data-bbox="815 685 1366 826"> <tr> <td><input type="checkbox"/> dick</td> <td><input type="checkbox"/> men</td> </tr> <tr> <td><input type="checkbox"/> Adam's apple</td> <td><input type="checkbox"/> gender</td> </tr> <tr> <td><input type="checkbox"/> cock</td> <td><input type="checkbox"/> rude</td> </tr> <tr> <td><input type="checkbox"/> nuts</td> <td><input type="checkbox"/> insult</td> </tr> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> dick	<input type="checkbox"/> men	<input type="checkbox"/> Adam's apple	<input type="checkbox"/> gender	<input type="checkbox"/> cock	<input type="checkbox"/> rude	<input type="checkbox"/> nuts	<input type="checkbox"/> insult
<input type="checkbox"/> similar	<input type="checkbox"/> identical																
<input type="checkbox"/> equal to	<input type="checkbox"/> indistinguishable																
<input type="checkbox"/> contrasting	<input type="checkbox"/> similarities																
<input type="checkbox"/> alike	<input type="checkbox"/> reproduction																
<input type="checkbox"/> dick	<input type="checkbox"/> men																
<input type="checkbox"/> Adam's apple	<input type="checkbox"/> gender																
<input type="checkbox"/> cock	<input type="checkbox"/> rude																
<input type="checkbox"/> nuts	<input type="checkbox"/> insult																
<p>37. I am <u>grateful</u>.</p> <table border="1" data-bbox="304 1077 783 1218"> <tr> <td><input type="checkbox"/> thankful</td> <td><input type="checkbox"/> happy</td> </tr> <tr> <td><input type="checkbox"/> big</td> <td><input type="checkbox"/> gratitude</td> </tr> <tr> <td><input type="checkbox"/> successful</td> <td><input type="checkbox"/> duty-bound</td> </tr> <tr> <td><input type="checkbox"/> appreciative</td> <td><input type="checkbox"/> excitement</td> </tr> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> thankful	<input type="checkbox"/> happy	<input type="checkbox"/> big	<input type="checkbox"/> gratitude	<input type="checkbox"/> successful	<input type="checkbox"/> duty-bound	<input type="checkbox"/> appreciative	<input type="checkbox"/> excitement	<p>38. I will <u>hand out</u> the tests soon.</p> <table border="1" data-bbox="887 1077 1366 1218"> <tr> <td><input type="checkbox"/> pass out</td> <td><input type="checkbox"/> impatient</td> </tr> <tr> <td><input type="checkbox"/> distribute</td> <td><input type="checkbox"/> hurry</td> </tr> <tr> <td><input type="checkbox"/> give out</td> <td><input type="checkbox"/> slow</td> </tr> <tr> <td><input type="checkbox"/> provide</td> <td><input type="checkbox"/> quickly</td> </tr> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> pass out	<input type="checkbox"/> impatient	<input type="checkbox"/> distribute	<input type="checkbox"/> hurry	<input type="checkbox"/> give out	<input type="checkbox"/> slow	<input type="checkbox"/> provide	<input type="checkbox"/> quickly
<input type="checkbox"/> thankful	<input type="checkbox"/> happy																
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<input type="checkbox"/> give out	<input type="checkbox"/> slow																
<input type="checkbox"/> provide	<input type="checkbox"/> quickly																
<p>39. A <u>pioneering</u> researcher developed a cure.</p> <table border="1" data-bbox="304 1469 783 1610"> <tr> <td><input type="checkbox"/> superior</td> <td><input type="checkbox"/> old</td> </tr> <tr> <td><input type="checkbox"/> original</td> <td><input type="checkbox"/> lucky</td> </tr> <tr> <td><input type="checkbox"/> first</td> <td><input type="checkbox"/> innovation</td> </tr> <tr> <td><input type="checkbox"/> religious</td> <td><input type="checkbox"/> world changing</td> </tr> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> superior	<input type="checkbox"/> old	<input type="checkbox"/> original	<input type="checkbox"/> lucky	<input type="checkbox"/> first	<input type="checkbox"/> innovation	<input type="checkbox"/> religious	<input type="checkbox"/> world changing	<p>40. The phone is not new but it's still <u>serviceable</u>.</p> <table border="1" data-bbox="887 1469 1366 1632"> <tr> <td><input type="checkbox"/> functional</td> <td><input type="checkbox"/> not in perfect condition</td> </tr> <tr> <td><input type="checkbox"/> excellent</td> <td><input type="checkbox"/> satisfactory</td> </tr> <tr> <td><input type="checkbox"/> usable</td> <td><input type="checkbox"/> unchangeable</td> </tr> <tr> <td><input type="checkbox"/> cool</td> <td><input type="checkbox"/> valuable</td> </tr> </table> <p><input type="checkbox"/> Negatiivinen <input type="checkbox"/> Neutraali <input type="checkbox"/> Positiivinen</p> <p>Jotain muuta?</p>	<input type="checkbox"/> functional	<input type="checkbox"/> not in perfect condition	<input type="checkbox"/> excellent	<input type="checkbox"/> satisfactory	<input type="checkbox"/> usable	<input type="checkbox"/> unchangeable	<input type="checkbox"/> cool	<input type="checkbox"/> valuable
<input type="checkbox"/> superior	<input type="checkbox"/> old																
<input type="checkbox"/> original	<input type="checkbox"/> lucky																
<input type="checkbox"/> first	<input type="checkbox"/> innovation																
<input type="checkbox"/> religious	<input type="checkbox"/> world changing																
<input type="checkbox"/> functional	<input type="checkbox"/> not in perfect condition																
<input type="checkbox"/> excellent	<input type="checkbox"/> satisfactory																
<input type="checkbox"/> usable	<input type="checkbox"/> unchangeable																
<input type="checkbox"/> cool	<input type="checkbox"/> valuable																

Appendix 6: English translation of connotation test

Connotation test

Connotation is a word's additional meaning or mental association. Connotation can be positive, neutral, or negative. For example, the word 'economical' has a positive connotation whereas 'stingy' has a negative one. The word 'economical' may connote farsightedness whereas 'stingy' may be associated with greed and selfishness.

Do not check the meaning of the words from a dictionary or online. Trust your own intuition. The answers do not need to be correct, because the purpose of the test is to test your intuition. Use about 30 seconds for each word.

Instructions:

- 1) Mark an X on 4 items altogether, which you believe are related to the underlined word. If you are unsure, you may mark less than 4 items.
- 2) Does the word have a positive, neutral, or negative mental association (connotation)? Mark your chosen option with an X.
- 3) If some other word or thing comes to your mind and it has not been listed, you may write them down under the heading **Anything else?**.
- 4) If you do not know the underlined word, skip it, and move on to the next word.
- 5) If you do not recognize a word listed inside the box, mark a question mark next to that word.
- 6) The final part of the test is optional. You may freely write your thoughts about these tests.

Example:

1. That person is scrawny.

- | | |
|---|--|
| <input checked="" type="checkbox"/> boney | <input type="checkbox"/> lovely |
| <input type="checkbox"/> whiney | <input checked="" type="checkbox"/> unhealthy |
| <input checked="" type="checkbox"/> thin | <input type="checkbox"/> loud |
| <input type="checkbox"/> talkative | <input checked="" type="checkbox"/> undernourished |

Negative Neutral Positive

Anything else?

unattractive, skinny

Appendix 7: Qualitative results of participants in Finnish

- P1.** Suurimman osan sanoista tunnistin. Muutamia outoja kuitenkin mahtui joukkoon. Oli pakko jälkikäteen tarkistaa sanojen merkitys tai olisi jäänyt vaivaamaan. Konnotaatio osiossa oli välillä vaikea muistaa, että piti keskittyä nimenomaan alleviivattuun sanaan. Välillä tuntui, että muut listassa olevat sanat vaikuttivat siihen pidinkö sanaa positiivisena vai negatiivisena.
- P2.** Isossa osassa en voinut valita kuin kolme, sillä monet sanat eivät tuntuneet ihan sopivan omiin konnotaatioihini. Muuten testit olivat suhteellisen helppoja.
- P3.** Esimerkkilauseet voivat luoda tietynlaisen kontekstin joka saattaa johdattaa/rajata tiettyjä konnotaatioita? Ohjeista ei känyt ilmi vaadittiinko vastauksiin tasan 4 konnotaatiota jos testaja oli eri mieltä annetuista sanoista - lisäksi välillä siis omia sanoja jotta 4:n raja täyttyi. Hauska ja monipuolinen sanasto, tsemppiä graduun Vanessa!
- P3.** Koin haastavaksi miettiä, olivatko konnotaatiot positiivisia, negatiivisia vai neutraaleja. Joidenkin sanojen kohdalla en ollut myöskään varma, ymmärsinkö sanan oikeasti vai loinko oman käsitykseni siitä, mitä ”sen on pakko tarkoittaa”.
- P4.** Testit olivat mielestäni suhteellisen helppoja. Muutamassa kohdassa piti neljänneksi konnotaatioksi valita jokin jäljelle jääneistä, mielestäni vähemmän sopivista vaihtoehdoista, mutta kyllä kaikki valinnat ovat perusteltavissa. Haastavinta oli ehkä konnotaation positiivisuuden/negatiivisuuden määrittelemisen, moni kohta jäikin neutraaliksi. Jotain muuta? -kohdat jätin joka sanan kohdalla täyttämättä, vaikka osaan olisi voinut mielenkiintoisia konnotaatioita löytyäkin._

- P5.** Haastavinta olisi ollut yrittää kehittää jotain synonyymeja, minkä vuoksi jätinkin kohdat ”jotain lisättävää” tyhjäksi. Sanapilven jälkeen tuli ihan jätävä bläkari enkä saanut päähäni oikein mitään järkeviä synonyymeja.
- P6.** Osa oli hyvinkin helppoja, mutta joissain kohdissa joutui hieman miettimään. En millään saanut suurimmassa osassa mieleeni lisäsanoina, tuntui, että ne olivat jo kaikki vaihtoehtoina. American football-kohdassa teki mieli valita enemmän kuin neljä sanaa, kuten popular ja cool, koska kyseisen urheilun pelaajista tulee nuo sanat mieleen. Piti siis vain valita sanat, jotka tulivat ensimmäisinä mieleen. Sanavarasto tehtävässä oli vaikeaa miettiä, tiedäkö osan sanoista, sillä olen kuullut ja lukenut ne monta kertaa, mutta en muista asiayhteyttä tai ollut varma, mitä ne tarkoittavat.
- P7.** Oli haastavaa valita kaikki konnotaatiot sen sijaan, että valitsisi vain sanan merkitykset. Kaikki sanat olivat ymmärrettäviä. Varmasti olisi voinut pohtia syvemminkin joitain sanoja, mutta kirjoitin ylös vain hetken mieli-ohjeet niin kuin ohjastettiin.
- P8.** Välillä oli hankalaa miettiä että oliko sana neutraali, neg. tai pos, vai aiheuttiko esimerkiksi ne mielle-yhtymät

Appendix 8: Finnish summary

Tiivistelmä

Tutkielman tavoitteena oli selvittää suomalaisten edistyneiden englannin kielen käyttäjien ymmärrystä konnotaatioista verrattuna natiivipuhujiin. Konnotaatio on sanan miellelyhtymä tai assosiaatio, jonka voi mieltää positiivisena, negatiivisena tai neutraalina. Tutkielmassa myös tarkasteltiin konnotaation ymmärtämistä kokonaisuutena ja sen kahden alakategorioiden kautta: assosiaatiot ja tunnetila, eli asiat, jotka tulee mieleen ja se, onko sana positiivinen, negatiivinen tai neutraali. Tutkielman ensimmäinen tavoite on selvittää, kuinka paljon suomalaisen edistyneen englannin kielen käyttäjän ymmärrys konnotaatioista vastaa natiivipuhujan omia konnotaatioita. Toisena tavoitteena on tutkia sitä, löytyykö konnotaation ymmärtämisellä ja vapaa-ajan englannin kielenkäytön välillä joku yhteys. Kolmas tavoite on selvittää, onko sanavaraston ja konnotaation tiedolla korrelaatiota keskenään. Tutkimuskysymyksiä lähestyttiin monimenetelmällisellä suuntauksella.

Teoreettinen tausta

Sanan määrittelyminen ei ole niin yksinkertaista kuin voisi luulla. Sanan määrittelymiseen käytetään erilaisia laskentatapoja, riippuen tutkimustyyppistä. Yksi laskentayksikkö on lemma, johon lasketaan sanan perusmuoto ja sen taivutusmuodot (Read 2000, 18). Esimerkiksi *nukkua*, *nukuin*, *olitte nukkuneet*. Toinen laskentayksikkö on sanaperhe, joka viittaa sanaryhmään, johon kuuluu sanan perusmuoto, taivutusmuodot ja johdannaiset (Read 2000, 18–19). Esimerkkinä tästä on *laulaa*, *lauloin*, ja *laulaja*. Tässä tutkielmassa sanan laskuyksikkönä ei käytetä kumpaakaan edellä mainittua yksikköä vaan käytetään käsitettä, joka sijoittuu johonkin lemmän ja sanaperheen käsitteiden väliin. Tätä laskutapaa käytetään sanavarastokokeissa, joissa sanat on otettu suoraan sanakirjoista (ks. Jaatinen ja Mankkinen 1993, Pirilä 2012).

Sanaston osaamista on jaettu kolmeen ulottuvuuteen: sanavaraston kokoon, sanasto-osaamisen syvyyteen ja sujuvuuteen (Daller, Milton ja Treffers-Daller 2007, 7–9). Sanavarastokoolla viitataan siihen, kuinka monta sanaa kielenoppija tunnistaa huolimatta siitä, kuinka hyvin hän osaa ne. Sanasto-osaamisen syvyydellä taas viitataan siihen, kuinka hyvin oppija osaa sanat. Tähän osaamiseen luetaan mukaan muun muassa

assosiaatiot, käsitteet ja viittaukset. Sujuvuus viittaa siihen, kuinka nopeasti ja automaattisesti oppija käyttää sanaa ja muistaa sen käyttöön liittyvät tiedot. Tässä tutkielmassa keskitytään lähinnä sanasto-osaamisen syvyyteen ja laajuuteen, eli sanasto-osaamisen kahteen ensimmäiseen ulottuvuuteen.

Sanaston osaamista voi luokitella reseptiiviseksi sanastoksi tai produktiiviseksi sanastoksi. Reseptiivinen sanasto tarkoittaa sitä, että sanamuoto ja sen merkitys tunnustetaan tekstistä tai puheessa (Nation 2001, 24-25). Produktiivinen sanasto taas liittyy kykyyn ilmaista merkityksiä puhuessa tai kirjoittaessa ja kykyyn muistaa ja käyttää puhuttua ja kirjoitettua kieltä sopivissa asiayhteyksissä (ibid.). Koska tutkimuskysymykset tarkastelevat nimenomaan kielenymmärrystä, tutkimus tulee keskittymään reseptiiviseen sanavarastoon. Aiemmissä tutkimuksissa sanavarastokoolla on ollut vanha yhteys sanasto-osaamisen syvyyteen (ks. Harkio ja Pietilä 2016, Qian 1999). Tässä tutkielmassa sanasto-osaamisen syvyydellä tarkoitetaan konnotaation ymmärtämistä.

Sanan merkitys on jaettu kahteen osaan: *denotaatioon* ja *konnotaatioon*. Sanan denotaatio tarkoittaa sitä, mihin sana viittaa. Tässä tutkielmassa sanan konnotaatio viittaa sanan assosiaatioihin, miellelyhtymiin ja sanaan liittyvään tunnetilaan. Konnotaation muodostamiseen tarvitaan tietoa sanan denotaatiosta ja se myös perustuu ”kokemuksiin, uskomuksiin ja epäluuloihin, jotka liittyvät kontekstiin, jossa sana yleensä esiintyy” (Allan 2001, 91). Konnotaatiot ovat positiivia, negatiivisia tai neutraaleja, eli konnotaatiot herättävät kielen käyttäjissä tiettyjä tunnetiloja. Kulttuurisella taustatiedolla on myös vaikutusta konnotaation ymmärtämiseen. Konnotaatiot vaihtelevat kulttuureittain (ks. Liu ja Zhong 1999, Altakhaineh ja Zibin 2014). Sanat, jotka ovat hyväksyttäviä yhdessä kulttuurissa, voivat olla täysin päinvastoin toisessa kulttuurissa (Milton 2009, 15; Kramsch 1998, 3). Haasteena ovat tilanteet, joissa puhujat eivät ymmärrä tai huomaa sanojen konnotaatioita. Siitä voi seurata väärinymmärryksiä tai jopa kommunikaatiokatkoksia. Aiemmissä tutkimuksissa on käynyt ilmi, että konnotaation ymmärtämisessä voi olla suuriakin eroja vieraan kielen käyttäjän ja natiivipuhujan välillä (Liu ja Zhong 1999, Altakhaineh ja Zibin 2014). Tutkijat ovat vahvasti ehdottaneet, että opetuksessa kiinnitettäisiin enemmän

huomiota sanojen konnotaatioiden ymmärtämiseen (Nation 2001, 51; Chen ja Zhao 2016).

Suomalaiset sanastotutkimukset ovat usein pyrkineet etsimään korrelaatioita vapaa-ajan englannin kielen käytön ja sanasto-osaamisen välillä (ks. alla olevia tutkimuksia). Englannin kielen oppiminen on yhä enemmän siirtynyt luokkahuoneympäristöstä arkisempaan oppimisympäristöön (Saarenkunnas 2006, 200). Kielenkäytön tiheydellä ja määrällä on myös vaikutusta oppimiseen, niin kuin Niitemaan (2014, 191) tutkimuksessa huomattiin. Lukemisen ja sanavarastomäärän välillä oli positiivinen korrelaatio (Pietilä ja Merikivi 2014, Pirilä 2012). Yhdessä tutkimuksessa kyseistä korrelaatioita ei löytynyt (Jaatinen ja Mankkinen 1993). Henkilökohtaisella kommunikaatiolla oli heikko korrelaatio sanasto-osaamiseen (Jaatinen ja Mankkinen 1993, 171; Pirilä 2012, 98). Korrelaatiota on esiintynyt myös englanninkielisten TV-ohjelmien tai elokuvien katselemisen ja sanasto-osaamisen välillä (Pirilä 2012). Englanninkielisillä peleillä on myös ollut vahva yhteys sanaston oppimisessa (Pirilä 2012, Uuskoski 2011, Sundqvist ja Sylvén 2012). Yksi tutkimus on löytänyt korrelaation sanakirjan käytön ja sanasto-oppimisen välillä (Jaatinen ja Mankkinen 1993). Englanninkielisen musiikin kuuntelun ja reseptiivisen sanavaraston välillä yhteyttä ei ole löytynyt (Niitemaa 2014).

Tutkimuksen toteuttaminen ja osallistujat

Tutkimuksen osallistui 30 henkilöä kolmesta eri yliopistosta Suomessa. Heidän äidinkielenään on suomi, ja he joko tekevät maisterivaiheen opintojaan tai ovat valmistuneet viimeisen viiden vuoden sisällä. Tiedonkeruuta varten tehtiin yksi kysely ja kaksi sanastotestiä. Kyselyssä selvitettiin tutkimuksen osallistujien taustatietoja ja eri kielenkäyttötapojen esiintymistiheyttä vapaa-aikana. Osallistujat arvioivat, kuinka usein he käyttävät englantia henkilökohtaisissa kommunikaatiotilanteissa, lukevat englanninkielistä kaunokirjallisuutta, lukevat englanninkielistä tietokirjallisuutta, kuuntelevat englanninkielistä musiikkia, katsovat englanninkielisiä TV-sarjoja tai elokuvia, pelaavat englanninkielisiä pelejä tai käyttävät sanakirjoja. Osallistujien sanavaraston koko arvioitiin Kyllä-Ei-sanavarastokokeella. Sanavarastokokeessa oli 149 sanaa. Osallistujien konnotaation ymmärtämisen kartoittamista varten käytettiin John Readin Word Associates -koetta, jota oli muokattu mittaamaan osallistujan konnotaatio

osaamista. Tässä kokeessa oli 40 sanaa. Näistä kokeista ja kyselystä saadut tulokset analysoitiin kvantitatiivisen menetelmän avulla SPSS-ohjelmassa. Kokeen lopussa oli vapaavalintainen osio, johon osallistujat saivat vapaamuotoisesti kirjoittaa tuntemuksistaan ja kokemuksistaan testien suorittamisesta. Tätä kvalitatiivista tulosta käytettiin täydentämään tutkimuksen kvantitatiivista puolta.

Tulokset ja pohdinta

Ensimmäisen tutkimuskysymyksen tavoite oli tarkastella sitä, kuinka lähellä suomalaisen edistyneen kielenoppijan ymmärrys englanninkielisistä konnotaatioista on natiivipuhujien ymmärrykseen. Suomalaiset kielenoppijat pärjäsivät parhaiten sanan tunnetilan arvioinnissa, vaikka heidän mukaansa nimenomaan sanan tunnetilan valitseminen oli haastavin osuus konnotaatiokokeessa. Osallistujat kokivat, että konnotaatiotestissä sanan assosiaatiovaihtoehdot ja lause, jossa sana esiintyy, vaikuttivat osallistujien päätöksentekoon, kun he yrittivät päättää, onko kyseinen sana positiivinen, negatiivinen tai neutraali. Assosiaatiovaihtoehtojen vaikutus on voinut siinä tapauksessa hieman vaikuttaa tutkielman tuloksiin.

Kielenoppijat ymmärsivät vain alle puolten sanojen assosiaatiot ja konnotaatiot yleisellä tasolla täysin samalla tavalla kuin natiivipuhujat. Osallistujien palautteen mukaan konnotaatiotestin ohjeet assosiaation määrän valitsemisesta olivat epäselvät. Kokeen ohjeiden mukaan osallistujan tuli valita neljä assosiaatiota, mutta jos he olivat eri mieltä valintojen kanssa, he saivat valita vähemmän kuin neljä vaihtoehtoa. Kokeessa heillä oli myös mahdollisuus kirjoittaa omia assosiaatioita. Osallistujat eivät kuitenkaan olleet varmoja, oliko heidän pakko valita neljä vaihtoehtoa jokaisen sanan kohdalla, jotta he saivat täydet pisteet. Konnotaation ymmärtäminen yleisellä tasolla koostuu assosiaatiopisteistä ja tunnetilan pisteistä, joten konnotaation yleisen tason ymmärtämisen alhaiset pisteet selittyvät assosiaatiotulosten luotettavuuden pienuudesta. Lisäksi kokeessa ei arvioitu osallistujien osittaista osaamista. Tämä merkitsee sitä, että osallistuja on voinut ymmärtää osan sanan konnotaatioista samalla lailla kuin natiivipuhujat. Konnotaatioilla on kulttuurinen puoli, jota ei välttämättä ymmärretä kulttuurin ulkopuolella (ks. Deghani 2009, Nation 2001). Ei olisi siis kaukaa haettava, että suomalaisille kielenoppijoille on kehkeytynyt omat assosiaatiot englanninkielisistä

sanoista, jotka eivät vastaa ulkopuolisten konnotaatioita. Sama pätee myös natiivipuhujiin.

Toisen tutkimuskysymyksen avulla tutkittiin sitä, onko vapaa-ajan englannin käytön ja konnotaatio-osaamisen välillä yhteyttä. Sanojen tunnetilan tietämyksen ja henkilökohtaisella kommunikaation välillä löytyi heikko negatiivinen korrelaatio ($r = -.387$, $N = 30$, $p < 0.05$). Suhteen vahvuus oli vaatimaton. Toisin sanoen, mitä enemmän kielenoppija kommunikoi englanniksi vapaa-ajalla, sitä vähemmän hän ymmärtää englanninkielisten sanojen tunneviivahteita; sama pätee myös päinvastoin. Englanninkielisten TV-sarjojen ja elokuvakatselujen ja assosiaatio-osaamisen välillä oli positiivinen korrelaatio, jonka suhteen vahvuus oli kohtuullinen ($r = .366$, $N = 30$, $p < 0.05$). Mitä enemmän kielen oppija katsoo englanninkielisiä TV-sarjoja tai elokuvia, sitä paremmin hän ymmärtää sanojen miellelyhtymät. Merkittäviä tuloksia ei löytynyt vapaa-ajan englannin kielen käytön ja konnotaation osaamisen välillä ($p > 0.05$).

Kolmannella tutkimuskysymyksellä pyrittiin selvittämään, onko sanavaraston suuruudella ja konnotaation ymmärryksen välillä yhteyttä. Osallistujien sanavaraston keskimääräinen koko oli 27 755 sanaa, mutta konservatiivisella laskelmalla, ottaen huomioon sanavarastokokeen pilotin virhemarginaali (1.34–3.35%), sanavaraston todellinen koko olisi 26 825 sanaa. Tämä laskelma sijoittuisi natiivipuhujan sanavarastokoon rajoihin. Sanavarastokoon ja konnotaatio-osaamisen välillä ei löytynyt merkittäviä tuloksia. Tämäkin tulos voi johtua konnotaatiokokeen esiintuomista haasteista, jotka heikensivät tuloksien luotettavuutta.

Lisätäkseen konnotaatiokokeen luotettavuutta, kokeen ohjeistuksia pitäisi tarkentaa, jotta eri käytäntötapojen esto kokeen suorittamisessa olisi mahdollista. Myös osallistujamäärän pienuus on voinut vaikuttaa tuloksiin. Suurempi osallistujamäärä antaisi mahdollisuuden tehdä parempia ja luotettavimpia johtopäätöksiä.

Johtopäätökset

Tutkimuksen tulokset olivat yllättäviä. Osallistajat ymmärsivät parhaiten konnotaation tunneviivahteet ja olivat siinä lähes samalla tasolla natiivipuhujien ymmärryksen kanssa.

Assosiaatio-osaamisen mittaaminen konnotaatiotestissä oli puutteellinen, koska yksi testin ohjeista oli epäselvä, minkä seurauksena osallistajat käyttivät kolmea eri menettelytapaa ohjeiden epäselvyyden ratkaisemisessa. Tämä ei vaikuttanut ainoastaan assosiaatio-osaamisen arvioinnin luotettavuuteen vaan myös suurimpaan osaan tutkimuskysymyksistä.

Konnotaatiotestiä tulisi kehittää tulevissa tutkimuksissa tämän tutkimuksen tulosten perusteella. Myös osallistujien määrän tulisi olla suurempi, jotta tutkimuksen tulokset olisivat luotettavampia. Mahdollisia mielenkiintoisia tutkimuskohteita olisivat myös konnotaation osittainen osaaminen, muiden englannin kielen osaamistasojen oppijoiden konnotaatio ymmärryksen mittaaminen ja englanninkielisen taustan suhde englanninkielisten konnotaatioiden ymmärtämiseen.