

**UNIVERSITY OF TARTU
DEPARTMENT OF ENGLISH STUDIES**

**THE COMPARATIVE EFFECTS OF USING WORD CARDS
AND THE ONLINE LEARNING TOOL QUIZLET ON
DEVELOPING LEARNERS' EFL VOCABULARY**

MA thesis

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ABSTRACT

To develop the learners' English as a foreign language (EFL) vocabulary, a variety of vocabulary learning techniques have been developed over the years. Two popular techniques often pointed out in the literature on vocabulary acquisition are the use of word cards and online learning tool Quizlet.

The aim of the present thesis is to compare the effects that the use of word cards and the online learning tool Quizlet has on the development of students' EFL vocabulary. Additionally, the students' attitudes towards both techniques were surveyed. To do this, a study was conducted in a small rural school in the west of Estonia among students from 6th grade. The aim of the thesis is to answer two research questions:

1. How does the effectiveness of using word cards compare with using the online learning tool Quizlet when teaching new vocabulary to A2 level EFL learners?
2. According to the students, what are the main issues and benefits of using word cards and Quizlet to study EFL vocabulary?

The present master's thesis consists of an introduction, two main chapters, a conclusion, a list of references and eight appendices. The Introduction explains the reasoning behind considering word cards and Quizlet as the bases of the study.

Chapter 1 contains the literature review on learning foreign language (FL) vocabulary and introduces different vocabulary teaching techniques. Among those, the use of word cards and Quizlet in vocabulary learning are discussed.

Chapter 2 gives an overview of a study conducted among 6th grade students in a small rural school in the west of Estonia. The aim of the study was to compare the effects of paper word cards and the online learning tool Quizlet on learning English phrases and to find out students' opinions on these two teaching techniques. The chapter describes the participants, setting, methodology and the results of the study and presents its main findings.

The master's thesis ends with a summary explaining the most important findings and conclusions of the present study, followed by a list of the literature used. There are eight appendices, among which are the vocabulary tests that were used to conduct the study.

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LIST OF ABBREVIATIONS

CALL	Computer Assisted Language Learning
EFL	English as a foreign language
FL	foreign language
L1	first language or mother tongue
L2	second language
TELL	Technology Enhanced Language Learning
ILE 4	<i>I Love English 4</i>

INTRODUCTION

Acquiring vocabulary can be considered a cornerstone of language learning. It is not possible to listen, read, speak, or write without possessing any vocabulary. To develop the learners' English as a foreign language (EFL) vocabulary, pedagogists have proposed a variety of different vocabulary learning techniques. In recent years, the use of different online tools for vocabulary learning has gained popularity as together with advances in technology, the opportunities offered by computer assisted language learning (CALL) are also evolving. Due to the abundance of techniques available, there is a constant effort among foreign language teachers to understand which techniques work the best, and which are less effective.

Several studies have been conducted researching different vocabulary learning techniques and the effects they have on the growth of the students' EFL vocabulary. Among these, using word cards is widely thought to be a very useful technique (Kuo and Ho 2012, Díaz 2016). Thornbury (2002: 146-147) explains that the word card technique involves giving the students small cards about the size of a business card that they then continue to write lexical items on. On one side of the card, students note down the new lexical unit to be learned, and on the other side of the card, they write the first language (L1) translation. The students can then use the cards to either try to recall the second language (L2) terms or the L1 translations. When a student feels that they have mastered a vocabulary unit, they can remove the card from the set. Additionally, it is beneficial to shuffle the cards as otherwise there is a risk of the students simply memorizing vocabulary in the order it is presented to them. Thornbury (2002: 145) also proposes that the use of word cards might be the most effective vocabulary learning technique as some students find "imaging" difficult and therefore popular mnemonic devices as the keyword method might not work for them. Preparing and using word cards, however, is something almost all learners are

capable of.

Kuo and Ho (2012) have investigated using Word Card strategy to study vocabulary and compared its effectiveness to that of Word List strategy. They found that using word cards produced better results than the other technique. Furthermore, Díaz (2016) argues that using word cards to learn vocabulary can help learners master both the written form and the meaning of the lexemes studied. He adds that when implemented systematically, word cards can also help the learners improve the recognition of the grammatical function of the words as it is also possible to note this down on the card.

However, lately, different online vocabulary learning tools have become popular. Among them, a tool used widely at the moment is Quizlet. It is an online learning tool that offers, among other solutions, a “flashcards” mode which is very similar to using word cards. In addition to the flashcards, Quizlet also offers a variety of other features, using which the students can practice the topic in question through different activities and games.

A variety of research projects have been conducted regarding the use of online learning tools in EFL vocabulary learning and several of them (Horst et al 2005; Kiliçkaya, Krajka 2010) state that the use of different online tools has proven to have a positive influence on EFL vocabulary learning. It can therefore be concluded that both word cards and online learning tools have proven to be beneficial to the processes of learning vocabulary.

However, a study on the comparative effects of Quizlet and a similar technique using pen and paper has not been conducted. Additionally, there is no consensus on which of the two might prove to be more beneficial in the case of A2 level foreign language learners.

The present MA thesis focuses on the comparative effectiveness of using word cards and the online learning tool Quizlet. In the experiment, a group of 6th grade students learn

vocabulary relevant to their curriculum using words cards and Quizlet. After using each study technique, the students take a vocabulary test and are asked to fill in a questionnaire about their opinions and perceptions regarding the technique used and comment on their experience. The study takes into account both the students' results in learning the translations of new phrases and being able to use them as well as their thoughts and feelings in regards of using both vocabulary learning tools. The results of this study could help teachers and learners decide whether using an online learning tool in comparison to a more traditional word card technique is beneficial or not. The aim of the thesis is to answer two research questions:

1. How does the effectiveness of using word cards compare with using the online learning tool Quizlet when teaching new vocabulary to A2 level EFL learners?
2. According to the students, what are the main issues and benefits of using word cards and Quizlet to study EFL vocabulary?

This study aims to help teachers see the differences between the effectiveness of using more traditional vocabulary learning techniques and similar tools online. The results of the study offer information regarding study results obtained using both techniques and the students' perceptions regarding the two different ways of learning.

The thesis consists of five main parts. To begin with, the Introduction discusses the topic of searching for the best vocabulary learning techniques. This is followed by Chapter 1 that contains a literature review providing information concerning the importance of vocabulary development, learning vocabulary and phrases, the aspects of knowledge regarding vocabulary and motivation in relation to learning vocabulary. Subsequently, different vocabulary learning techniques are introduced and the use of word cards and Quizlet as vocabulary learning tools is discussed. Chapter 2 focuses on the study conducted among year 6 students in a small rural school in the west of Estonia. The aim of the study is

explained, followed by a description of the participants and the setting of the study. Next, the methodology of the study is explained, the results are analysed and discussed, and conclusions are made. Concluding the thesis are the List of references and 8 Appendices. The Appendices show the parental consent form and the pre-tests, post-tests and questionnaires that are used to conduct the study.

CHAPTER 1

1.1 The importance of vocabulary development

To be proficient in any language, be it one's mother tongue (L1) or a foreign language, an extensive knowledge of vocabulary is needed. Webb and Nation (2017: 5) note that vocabulary is a cornerstone for language proficiency, as the ability to express oneself and to understand input both depend on the extent of one's vocabulary.

A person's vocabulary must be developed both in their L1 as well as in any foreign languages (FL) they study. Learning their first words and starting to speak their mother tongue, children do not deliberately and knowingly learn vocabulary. Adults often help children with vocabulary acquisition by using picture books and pronouncing words slowly, but children do not actively think about studying vocabulary.

In contrast to this process of acquiring one's first language, people are aware of learning new vocabulary when they do so at school. Of course, vocabulary can be learned in foreign language classes, but it is not the only place where one acquires new lexical knowledge. Vocabulary can also be broadened outside of language lessons. For example, any new subject-specific terms learned in mathematics or biology class also broaden our knowledge of a language, be it our mother tongue or a foreign language. Webb and Nation (2017: 48-49) address this question by dividing vocabulary acquisition into two: incidental and deliberate. The incidental learning of lexemes takes place when a person does not focus on getting to know new vocabulary when reading or listening, but they acquire new words or phrases as a consequence of processing any input. The deliberate learning of vocabulary; however, happens when a person knowingly increases their vocabulary in a language. The authors affirm that most of the lexemes people learn in their mother tongue are acquired naturally, i.e. learned incidentally; however, should a person wish to speak any additional languages, a very large part of vocabulary growth needs to be attained by deliberately

learning. This suggests that to be proficient in a foreign language, learners must devote a lot of time and effort to studying the vocabulary of the target language. To knowingly develop learners' FL vocabulary, the best possible solutions to facilitate vocabulary learning should be identified. In order to do that, teachers, researchers, and students alike are constantly navigating among various vocabulary learning techniques to find which yield the best results in developing the learner's vocabulary. Webb and Nation (2017: 131) second this idea by stating that because EFL learners may have scarce exposure to the foreign language being studied outside school, teachers play a big role in determining what vocabulary the students come into contact with and learn. While it can be argued whether EFL learners today have scarce exposure to the language or not, it is certainly possible that for many students, the language input they receive outside of school is very uniform, such as war-themed computer games or a blogger focusing their content on a certain topic. In order to develop the language of learners equally across fields, it is necessary that teachers carefully consider which input they give students at school.

The language content and language levels that have to be achieved by the students at the end of each school level have been set by the National curriculum for basic schools (*Põhikooli riiklik õppekava* 2011 and in its Appendix for foreign languages (*Põhikooli riiklik õppekava. Lisa 2. Ainevaldkond „Võõrkeeled“* 2011); nevertheless, teachers are still responsible for selecting the exact language content they present to the students as there are numerous different sets of study materials available on the market. Therefore, although the outlines for teaching are broadly set for teachers, they still have a choice, and it is ultimately up to them to decide which register and vocabulary is used in class. Teachers can also choose additional audio-visual materials from a variety of web sites that may not be directly intended for language learning, as, for example, *Youtube*.

While there are many different sets of study materials one can use in class and it is

natural that teachers apply different techniques and principles when teaching, it is still clear that the English language is an important, popular and valued subject in Estonian schools. According to the final report on the implementation of the Estonian Foreign Language Strategy 2009-2015 published by the Ministry of Education of the Republic of Estonia (*Eesti võõrkeelte strateegia 2009–2015 (2017) täitmise lõpparuanne*: 2), the most popular choice of the first foreign language (the so-called foreign language A) studied in Estonian schools is English. Based on this, the present thesis examines the effects of different vocabulary learning techniques on students' EFL vocabulary.

1.2 The importance of teaching lexical phrases

To convey a certain idea or a piece of information in a language, one needs vocabulary. Although each word has a meaning, simply recognising the meaning of a single word is not enough. Nation (2001: 56) claims that to truly know a word, one must know the collocations used with the word. Lindstromberg and Boers (2008: 7) explain that collocations, otherwise known as lexical phrases or chunks of language, are “sequences of words native speakers feel [are] the best natural and preferred way of expressing a particular idea or purpose.” In fact, a large part of the English language is made up of multi-word combinations and many of these are used as frequently as individual high-frequency words (Webb and Nation 2017: 13). Nation (2001: 322) adds that the meaning of the chunk of words may not be the same as the meaning of the individual words that form it. Even more, he states that some lexical phrases have an established meaning that differs from its constituent parts. For example, the phrase *answer the door* does not mean one should give the door an answer, instead it suggests that “[one should] open the door to see who is knocking on the door or ringing the doorbell” (Merriam-Webster 2022).

Some phrases, however, may have two or more meanings – some figurative or nonliteral and some direct. The phrase *kick the bucket*, for example, may refer to the act of hitting a container with one's foot, or, alternatively, to die. It is also possible that the learners will assume the meaning of a phrase from context or guess its meaning based on their knowledge of another language. Carroll (1992: 104) explains that “any pair of words which are created by the learner as belonging to distinct linguistic systems but are also treated as “the same thing” within those systems” are cognates. Using cognates or translation equivalents, however, can cause misunderstandings and mistakes as sometimes they are used “in the absence of a semantic overlap” leading to so-called “false-friends errors” (Janke and Kolokonte 2015: 138). An example of such deceptive cognates is the English-Spanish word pair *embarrassed* and *embarazada*, which are often thought to have the same meaning by entry-level language users while, in reality, *embarazada* translates into *pregnant* in English. Thus, if a student only learns individual words and not lexical phrases, they might have a harder time understanding information given to them or even misunderstand something.

To be able to speak a language at the level of a native speaker and use a foreign language in a way that feels natural to anybody reading or listening to the text produced, a person must be able to use a large number of lexical phrases (Lindstromberg and Boers 2008: 7, Nation 2001: 56, Amer 2014: 286). Knowing different collocations associated with a word helps the speaker process language faster (Nation 2001: 320) and therefore hesitate less when speaking. This quick processing is precisely one of the things that indicate that the speaker is fluent in a language. If a person is constantly taking brakes to find a word or a lexical phrase, the feeling of fluidity disappears. The speaker can possess very good grammatical knowledge but without instinctively knowing which word should follow the other, their speech cannot seem as effortless as that of a native speaker would.

In addition to ensuring fluidity of speech, Gairns and Redman (1986: 33-43) point out two more aspects as to why being familiar with those “chunks of language” is important. Firstly, knowing them can help students perform better grammatically as in the English language, many verbs consist of more than one word. The learners often come across phrasal verbs, prepositional verbs, or verb + preposition combinations and should be explained how to use them in a sentence. Secondly, they state that learners should be made aware of the fact that, in certain situations, one should use synonyms instead of lexical phrases, as some phrases are meant for more colloquial use. Boers et al (2006: 246-247) add that in addition to minimising hesitations and helping speakers achieve fluency, knowing a big number of lexical phrases helps “facilitate fluent language production under real-time conditions.”

Therefore, it can be concluded that it is important to familiarise students with multi-word lexical phrases as doing this has the potential to help improve the students' language skills grammatically and lexically as well as in terms of style. It will give students confidence and the ability to express themselves more freely.

1.3 Aspects of knowledge in learning vocabulary

When students learn new vocabulary, it is important that they do not only learn the form of the lexeme and its translation, but that the meaning and use of the items are also understood. The students should not only understand what the lexical item means and be able to translate it, but they should also be able to use the new words and phrases themselves. To master a word, one should know its written and spoken form, understand the meaning of the word and know how to use it (Webb and Nation 2017: 38). Schmitt (2000: 4) explains that when a person simply understands the meaning of words, their knowledge of it is receptive. However, if they are able to use said words by producing them either orally or in writing, the vocabulary is being used productively. If a student is able to

simply recognize and understand a word by reading or hearing it, their language skills are merely receptive, and not productive.

To a foreign language learner, the ability to read or listen usually comes more easily than that to write or speak. To explain this, the distinction between receptive and productive language knowledge must be clarified. Webb and Nation (2017:33) explain that when a person reads or listens, they receive language input, and using language this way is called receptive knowledge. After having gained the ability to receive language, one begins to produce language. Productive language knowledge involves speaking and writing (Webb and Nation 2017:33).

Gairns and Redman (1986: 65) point out that a person's receptive vocabulary is always bigger than their productive vocabulary because "an educated speaker is able to "understand" [up to] 60,000 items, although no native speaker would pretend that his productive vocabulary knowledge would approach this figure". A study by Davies (1976: 441) seconds this claim by remarking that "one's understanding of language /.../ normally far exceeds one's ability to speak it."

The new vocabulary a person studies is often first used receptively, and it gradually transitions into productive vocabulary as the word or phrase is used multiple times (Gairns and Redman 1986: 65). This idea is supported by Davies (1976: 441) who proposes that a person's knowledge of a foreign language can be grouped into three stages. The first two stages both include only the passive use of language, the first one consisting of the existence of receptive reading skills, and the second of those of receptive writing skills. The third and final stage is reached when a person is able to actively use oral and written skills productively. It has also been made clear that transition from one stage to the other is not instantaneous and in places, the stages overlap.

Thus, it can be claimed with certainty that for most EFL learners, the receptive use

of language comes first and is easier to achieve. Gaining productive knowledge takes more time and effort. Nevertheless, one can usually produce some form of the foreign language being studied in the very first language class. For example, a person usually learns to say their name or to greet someone in the very first language lesson by reading or hearing and simply repeating the given input. Still, they might forget how to say these things by the next class. They will, however, probably be able to understand the vocabulary when reading it. This means that it takes some time for the vocabulary to actually be mastered.

1.4 Motivation and learning vocabulary

One very important aspect that cannot be overlooked when discussing the process of learning is motivation. The question of helping students find motivation and keep it high is one that is important today and has always been important in acquiring new knowledge in any field. While the topic of motivation is a very wide one and has many different facets, the ones discussed here are only the ones that have come up the most while studying literature relevant to online versus paper learning techniques.

One of the reasons behind the growing popularity of technology enhanced language learning (TELL) is the belief that using computers and other handheld electronic devices increases students' motivation to learn. Kim (2008: 250) explains that EFL teachers see computers in their classrooms as either tools, motivators or optional tools and describes that teachers believe computers serve as motivators for students to engage more in learning by providing a variety of activities and different input.

One way of motivating students is giving feedback to their work. Studies show that learners like to know how they are progressing, and feedback is very welcome, especially if it is positive and constructive and therefore helps them realize which lexical phrases, for example, have already been mastered and which need more work (Li and Hafner 2022,

Amer 2014). Positive feedback gives the students a feeling of advancing. This is where online learning enters the discussion as Li and Hafner (2022: 75) explain two positive features that web environments possess over paper-and-pen techniques; firstly the fact that mastering a new word online feels like reaching a new level in a game, and secondly, that applications with online word cards often give instant feedback on a student's advances. This is supported by Amer (2014:93) who reports that after having used the application *Idiomobile*, learners noted that they enjoyed getting feedback from the app as it helped them understand which idioms they should practise more, and which have been mastered. Getting personalised feedback seems to be a source of motivation for students as it facilitates learning for them. The feedback given by the app helps students be in control of their learning while, according to Li and Hafner (2022: 76), automatic assessment provided by an app relieves the students of the burden of self-evaluation.

Another way to help improve motivation is gamification. Feedback can help create a game-like feeling, as mastering a new lexical item may give a similar feeling to advancing in a game (Li and Hafner 2022: 75). While it is not negated that online tools help create a more game-like atmosphere and broaden the scope of opportunities, using games for language learning is not a new trend as language classrooms have always features word explanation or guessing games, singing and board games, to name a few. Many online tools, like Quizlet, however, make the gamification of learning easier and faster as they create an array of different games themselves when some information is entered by a teacher.

Students are more likely to learn and may do it more diligently if they can always easily access the relevant study materials and are able to carry them along without difficulty. Using online learning tools can lead to a more positive user attitude among students as nowadays people usually have a handheld mobile device with them wherever they go but carrying papers, for example, seems inconvenient (Li and Hafner 2022: 75).

Lastly, the topic of grades and the motivational advances they offer must be discussed. Ames (1992) has summarized the achievement goal theory by describing that students can have two different learning goals; mastery-orientated or performance-oriented. The first means that their goal is to master the meaning, to learn something thoroughly and to know everything about it. The second, however, means that students only study a certain topic to get a good sense of self-worth. This means that some students learn to get a good grade, or a better grade or score than their classmates, and not to master the subject. Therefore, when teaching students anything new, it is important to keep in mind that the promise of a grade will motivate many students to learn something they would otherwise not learn.

1.5 Online and paper-based vocabulary learning techniques

There are dozens of different techniques that can be used to teach L2 words and phrases, the exact number cannot be counted as new techniques emerge constantly and sometimes one can involve many others. For example, Walters and Bozkurt (2009: 404) affirm that keeping a vocabulary notebook can be seen as one technique, but in reality, it involves many different techniques, for example, using dictionaries or guessing from context. The line between learning techniques might be difficult to grasp and, often, a mix of different techniques is used in class. Thus, the following section first offers a comparative overview of some online and more traditional vocabulary learning techniques, and the benefits they offer.

One way to broadly divide vocabulary learning techniques into two is to distinguish the so-called traditional learning techniques from the modern ones by taking into consideration the resources used to carry out the learning process. In other words: to distinguish if the learning process is carried out by using pen and paper or whether technology is used instead.

With the emergence and rapid development of technology and the expansion of its availability over the last decades, learning has become more technology based as through technology, a variety of activities and exercises are readily available, and many people have a portable electronic device, such as a phone or laptop on their person at any time. On the one hand, learning techniques have been adapted and made suitable for Internet and computer use, but on the other hand, completely new technology-based opportunities for carrying out the learning process have also emerged. Thus, one wide distinction between different learning techniques is whether electronic devices are used or not.

Computers and handheld electronic devices serve to facilitate people's lives as typing is usually faster than writing by hand; additionally, it also puts less strain on a person's hand physically. Should somebody need to write a longer text, using an electronic device serves to save time and energy. Despite this, one might suggest that while typing is easier and faster, it also requires less concentration whereas when writing by hand, any information must be processed more thoroughly. Ihara et al (2021) have studied the effects of writing by hand (both with an ink pen on paper and with a digital pen on tablet) and typing on a keyboard on learning outcomes. They noted that when typing, students write faster than when writing by hand and therefore manage to note more words in the same amount of time. However, they postulate that "the movements involved in handwriting allow a greater memorization of new words [than typing] (2021: 1)". The study they conducted revealed that writing by hand indeed resulted in better test results than writing on a keyboard regardless of whether an ink pen or a digital pen was used (Ihara et al 2021: 9-10). This suggests that the motion of writing is an important factor in memorising content whereas it does not matter if the writing takes place on paper or on an electronic tablet, as long as a pen of some kind is used.

It is true that writing on a computer and on paper are different in many aspects.

While typing may be faster, it might also be more superficial as the idea of making mistakes is not a big a problem because electronic devices allow for corrections to be made, parts of the text to be deleted, rearranged, or changed. This idea is supported by Mangen et al (2015: 238) whose study implies that when using longhand writing to study, better results can be seen in regard of recall of written materials in comparison to using keyboards. They summarize that longhand writing requires more precise and motorically controlled actions and the writer's attention is focussed to the tip of the pen where the writing happens. When typing, however, one looks at *either* the keyboard or the screen, not at both at the same time and thus the writer's attention is divided between the act of typing and looking at what has been written (Mangen et al 2015: 229). Therefore, less connections are made between the hand and the brain about what is written down using a keyboard and which suggests that writing longhand could be more beneficial to processing information.

Additionally, Mueller and Oppenheimer (2014) have compared students' academic results after taking longhand and laptop notes in lesson. While this study focuses on notetaking, its findings correlate with the idea that information is processed more thoroughly when using a pen and not a keyboard to write. This is suggested to be the result of the fact that when students take notes on a computer, they write down the information word for word, that is, without thinking, but writing by hand is more time consuming and therefore students think more about the process of taking notes.

1.6 Using technology to enhance language learning

While there seems to be ample proof to demonstrate the superiority of longhand writing over using a computer in learning, one should not forget the fact that technology serves to make our lives and, among it, the process or learning languages, faster and more diverse. Computer Assisted Language Learning (CALL) and Technology Enhanced

Language Learning (TELL) have been around since the 1960s (Chun 2019: 14) and as technology in general has changed and advanced considerably, CALL has been one of the fastest-evolving areas in foreign language teaching since the 1980s (Chun 2019: 14, Crystal 2010: 397). Chun, who believes that the terms CALL and TELL can be used as synonyms, suggests that the term TELL is a more accurate one to be used today. This means that computers and, more precisely, different webpages and mobile applications, can not only assist learners and teachers in the study process, but, if used wisely, they have the ability to *enhance* any learning process and can therefore be very helpful in language learning as well. Rosell-Aguilar (2017: 243) explains that we are dealing with a boom in new language learning software applications because handheld mobile devices continue to develop, and their use becomes more widespread. With the help of computers, many traditional vocabulary learning activities such as gap-filling and multiple-choice exercises have been modernised and today, technology can be used in all areas of language learning (reading, listening, speaking, writing) (Crystal 2010: 397). Different vocabulary learning applications and webpages offer many kinds of activities that are often created automatically by a program. To offer the students the same array of different activities in class, teachers must devote a lot of time and energy into preparing them.

The number of mobile applications one can use for enhancing the language learning experience is difficult to count as a large number of applications serve many different purposes. In his 2017 paper, Rosell-Aguilar summarises the field of mobile apps for language learning by dividing it into three: apps designed specifically for learning languages, apps that have not been designed for that specific intention but can still prove to be useful for language learners, and lastly, dictionaries and translation apps like Google Translate and iTranslate. In the first category are the apps like DuoLingo, Speakeasy and Conjuverb (a Spanish verb conjugation app) that only serve the purpose of language

learning and provide ready-made language-learning packages (Rosell-Aguilar 2017: 248). This means that those apps are not customisable by the user, be it the student or the teacher. The second group, however, consists of applications and webpages like Quizlet and Memrize that can be used to learn or do many different things (Rosell-Aguilar 2017: 249-250). Applications like Quizlet and Memrize offer users the opportunity to work with and learn information posted by other users, but they also allow the user to upload their own learning content. In the case of Quizlet, it is possible for teachers to create classes and study sets, but it can also be used by all individuals who wish to revise or study any given topic as it is free of charge and study sets can be assembled and used by everybody.

As computer-based solutions allow the learning process to be made faster and more interesting, many attempts have been made to study whether they may be more effective than more traditional learning techniques. In their 2010 paper, Kiliçkaya and Krajka aim to find out whether learning English vocabulary using an online tool, *WordChamp*, is more effective than the traditional strategies that involve using word cards, dictionaries, and notebooks. Students who took part in the study were divided into two groups: control group, which used the traditional technique to study, and an experimental group that practiced using *WordChamp*. The results of this study show that students using the online tool to learn vocabulary significantly outperform the students who use traditional learning techniques. The article also claims to be an example of the fact that students should have the freedom to choose the learning technique most suitable for them as different techniques work well for different students.

While language learning mobile apps seem to offer motivational feedback and a sense of independence for learners (Amer 2017: 293), the focus in these applications is very often on the growth of vocabulary size (Kim and Kwon 2012: 41, Li and Hafner 2022: 67). A study reviewing 87 mobile applications targeted for English language learning found that

55% of the applications studied include vocabulary learning activities while, for example, only 15% have activities for reading, 11% for grammar and 31% and 29% of the applications, respectively, require the student to recognise or recall a lexical item (2012: 41).

Using online tools to study makes the study process more attractive to students and therefore increases their interest in taking part in the learning process. While it has been argued that studying using a keyboard and a computer is more superficial, this might not be the case if individual lexical phrases and their L1 equivalents are being learned. With there being less information to process, there is less risk that students will start mindlessly typing or scrolling through information. When the chunks of information that are being studied are small, students have to constantly think of retrieving connections between their mother tongue and the foreign language being studied. It can thus be assumed that when learning individual phrases, the use of online tools can have a positive effect on developing the students' knowledge on a certain topic.

1.7 Using word cards as a vocabulary learning tool

As it has been stated earlier, the distinction between different learning techniques may often be difficult to grasp. In the present thesis, Quizlet and the use of word cards are discussed as two different techniques used to study EFL vocabulary. However, both techniques involve using flashcards with an L2 phrase written on one side and the L1 translation of the same phrase written the other side. The big difference between the two is that word card technique uses physical cards written on paper whereas Quizlet offers similar flashcards electronically.

Using word cards as a language learning technique is a very widespread way of learning new vocabulary that focusses mainly on helping students learn the connection

between form and meaning (Li and Hafner 2022: 68). Mondria and Mondria-De Vries (1994: 53) explain that while it is possible to create such cards that present the L2 term and L1 translation on the same side of the card, it is more beneficial to have them on opposite sides of the card as not seeing the translation of the item prompts the learner to think before checking whether they know the word. However, when the translation is given under the term, no retrieval happens. They continue by explaining that while different learning activities can be conducted, the act of preparing the word cards is in itself an activity that can add to the learning process as “writing the cards the learner pays more attention to the word form of the foreign language word than is usually the case” (Mondria and Mondria-De Vries 1994: 53).

However, there are some issues in having the students prepare their own word cards. In their study, Reynolds et al (2020: 10) found that the students presented “a sizable amount of careless behaviour” when self-constructing word cards as some students misspelled words or made duplicate or incomplete cards. The article suggests co-constructing cards in class. This way, the students can still retrieve the gains from writing their own cards but the input is controlled and known to be correct.

While it is possible to have the students use the new vocabulary being learned productively by having them prepare their own word cards, the most widely spread use of word cards is the retrieval of a definition or translation of words as they are used to try to recall what is written on the other side of the flashcard. Webb and Nation (2017: 71) state that flashcards mainly serve to improve the retrieval of vocabulary units that are being learned. When looking at the L2 word and trying to recall its meaning in L1, the students are dealing with receptive retrieval. However, if they are looking at the vocabulary unit in their mother tongue and try to retrieve its translation in L2, they are dealing with productive retrieval, meaning that while trying to remember the L2 translation of a phrase is retrieving

information, it is still productive as the learner is given the L1 item.

Webb and Nation affirm that the use of productive retrieval is more beneficial as it is more challenging to do. They further assert that doing well on productive retrieval ensures success for receptive retrieval as well. It can thus be concluded that using either word cards help students learn the form and meaning of new vocabulary units as they have a chance to look at the L1 side of the cards to produce the L2 translation.

The use of word cards provides an opportunity to diversify the process of learning words and phrases. In order for the students to become more aware of the learning process and the words they are learning, teachers can have the students prepare the cards themselves. This way, the students have to write the words out themselves, which means that they are already tasked with reproducing the written form of the lexical item and knowledge of the new vocabulary is not limited to receptive input only.

Díaz (2016: 73) affirms “that the use of word cards as a strategy helps improve vocabulary knowledge“ and notes that this technique especially supports the students in mastering the written form of the word and supports the hypothesis that it contributes greatly to learning its meaning. Díaz also proposes that using word cards should be obligatory for beginner EFL learners as it does not cost a lot of money but is very helpful in learning new lexemes (Díaz 2016: 73-74).

Studying relevant literature has proved that the use of the word cards is beneficial in learning new lexical items. Paper word cards, just as electronic ones, can be used in many ways. One does not only have to look at the word card and try to recall what is written on the other side. It is possible to bring more playful activities into the classroom using word cards as well. For example, matching and gap-fill activities can be officiated in the classroom and on paper, not just online, as well. Additionally, the teacher can fill the classroom with gapped sentences, and students must fill in these gaps using their word cards. Using two sets

of word cards, for example, those of desk mates, a game of matching can be played.

Just as many other learning activities and tools have been computerised, word cards can be created both on paper as well as online. Li and Hafner (2022) have conducted a study investigating the use of computer- and paper-based word cards in a Chinese university and found that both learning tools helped improve the students' vocabulary knowledge. The authors of the study affirm that while a large part of research centring around vocabulary learning puts emphasis on receptive vocabulary knowledge, this study investigated both receptive and productive vocabulary learning. Moreover, its results indicate that mobile learning led to better productive vocabulary knowledge. However, the application used in this study seems to have been designed for this specific study and is therefore not available to anyone who might be interested in it. Therefore, the full list of opportunities that the app offers is not quite clear.

Webb and Nation (2017: 113) also note that different software exists that offers the use of electronic flashcards, and they add that if used well, digital flashcards should “be at least as effective as the paper versions, [or] even be better if used properly.” They state that this might be because of two features. First, adaptive recycling features and secondly, the ability for learners to track their progress is motivational. This means that if the students study vocabulary using an online tool, the tool itself may determine which vocabulary units the students have already mastered, and which they need to work with more. Online tools are often capable of making certain adaptations according to this data, and the students get to revise the more difficult vocabulary more times and more often. The words that have been mastered, meaning that the students understand and can correctly recall and produce its written and spoken form and understand the meaning of the word, are either left out of the rotation completely or come across less often. Some online tools either reward students with points or tell them what percentage of the vocabulary they have already mastered. Knowing

that they have mastered a word may help the students know that they are coming close to mastering the whole study set, which in turn may be a source of motivation. Not knowing how much effort is still ahead may be very demotivating. If it is known that 25%, 50% or 80% of the words have been learned, students can already speculate on how long it will take them to master the whole study set.

The question of motivation is certainly important and will be discussed further below. Nevertheless, the fact that it is not very easy for the learners to keep track of their progress using paper word cards has to be recognized and therefore, using these might prove to be less motivating. As it is more difficult to figure out which word cards have been learned properly, it might also prove harder to adapt and figure out which cards must be revised more and which could be set aside.

1.8 Using Quizlet as a vocabulary learning tool

While the advantages of using online tools to enhance learning were discussed above, the discussion delved more deeply into the opportunities one online learning tool, Quizlet, offers. While the tool has not been created to serve strictly as a vocabulary learning tool, it is widely used as such as it is an online learning tool that allows its users to create flashcards and vocabulary sets. It is available both via an official website or as an application that can be downloaded to a handheld electronic device. Once a vocabulary set has been created, one can perform different activities with the cards in the set. The activities available include digital flashcards or word cards, L1 to L2 matching games, listening, and typing.

Firstly, Quizlet offers five study modes: Flashcards, Learn, Write, Spell and Test and three activities called Match, Gravity and Live (Quizlet Help Center n. d.). Previously, an activity called Checkpoint was also available, but it has since been removed.

The flashcards mode Quizlet offers is similar to paper word cards. Users are shown a word card which they can flip over by clicking on it. The user can choose whether they look at the term or its definition first. Therefore, within the framework of this study, and learning vocabulary, they can choose whether they are to recall the L1 or L2 phrase. As was postulated previously, seeing the L1 phrase and trying to recall the translation in L2 will likely yield better overall results than trying to recall the Estonian equivalent after seeing the phrase in English.

Additionally, Quizlet offers a Learn mode, which aims to let the students test their knowledge. In this mode, students first answer multiple-choice questions and then the vocabulary already worked through will return, only now the students must write down the answers once again. Quizlet is not a tool designed to be a grading tool; nevertheless, it gives the students immediate feedback on their answers.

Quizlet also offers two study modes where students must write down the new phrases being learned. The first of these is called Write and in it, users are shown either the term or definition and they have to write down the correct answer. The webpage automatically evaluates whether the answer was correct or not and gives immediate feedback. Should the user make a spelling mistake, but otherwise knows the correct answer, they can choose to have their answer counted as correct if they wish to do so. Another study mode that includes writing is called Spell. In this activity, the term is read out loud by the program, the students listen to it and type in the term using the correct spelling. In this activity, being able to spell the word correctly is the objective, so no mistakes are allowed.

The last study mode is called Test and it combines different activities such as fill-in-the-blank, multiple-choice, matching, and true/false questions. To simulate an exam or a test, the students do not get to see their results before completing the entire test.

Additionally, Quizlet also offers two more playful activities. The first game activity is called Match. In this activity, the students see all the phrases in the study set in both languages scattered across the screen and they are tasked with dragging the L1 term on top of its L2 counterpart, or the other way around. This activity is timed, and the task is to clear the grid as fast as possible. If the students are logged in with their personal Quizlet accounts, their time is saved, and other users playing with the same set of words can see their time. A ranking is formed based on the fastest times. As this creates some competition, it can give students extra motivation to clear the grid faster than their fellow students. To do this, Match can be played as many times as desired.

Another playful activity requires the students to write out the words. This activity is called Gravity and the objective of the game is to prevent phrases running down the screen vertically from reaching the bottom. To do so, the user must type in its translation. This game offers different difficulty levels as students can choose between easy, medium, or hard. They can also choose whether they answer with Estonian or English phrases or a mix of the two.

Lastly, Quizlet also offers an activity called Live in which a class can be broken up into teams or into individual students who compete in real time. The users must choose the correct term or definition and if anybody chooses the wrong answer, their score will reset.

While Quizlet is a free online tool, it also offers a paid Quizlet Plus for teachers subscription (Quizlet.com 2022). Compared to the free version, this gives teachers the opportunity to monitor class progress and view the study process of individual students. Using the subscription, the teachers also find out which terms in a certain set the students need to work with more as the tool shows what percentage of time student answer an item in question correctly.

As it is pointed out by researching various articles written on this topic, in the past, the use of paper and pencil as well as that of computers to learn vocabulary have had a good

effect on students' vocabulary knowledge. With the emergence of online tools, computers are used more and more but some doubts remain as to whether the same depth of knowledge is reached using online tools to learn as is done when using more traditional learning techniques. The following Chapter 2 will try to answer this question as it will focus on the study conducted for this master's thesis. The aim and research questions, participants and setting, methodology and procedure as well as the results and conclusions will be presented.

CHAPTER 2

2.1 Aim and research questions

The aim of this thesis is to find out how two different vocabulary learning techniques, using word cards and the online learning tool Quizlet, affect 6th grade A2 level EFL learners' results in learning lexical phrases. The study also aims to investigate the students' attitudes towards using the two different learning tools. Based on the aim of the thesis, two research questions were formed:

1. How does the effectiveness of using word cards compare with using the online learning tool Quizlet when teaching new vocabulary to A2 level EFL learners?
2. According to the students, what are the main issues and benefits of using word cards and Quizlet to study EFL vocabulary?

2.2 Participants and setting

The participants of the study were eight 6th grade students attending a small rural school in the west of Estonia. All the eight students in the class took part in the study and orally consented to doing so. Additionally, a written consent form was sent home to the children's parents, as the students were underage. All the consent forms were sent back to school and answered positively, meaning that all the parents also consented to their children taking part in the study. The students, as well as the parents, were affirmed that the study was anonymous, and the student's results would only be used to create a statistic.

In order to create as normal learning conditions as possible for the study, learners who are the students of the author of this master's thesis on a daily basis were selected for the study. The reason behind choosing the 6th grade is that this is one of the biggest classes taught by the author of the thesis in the school as grades seven, eight and nine have an even smaller number of students. While, for example, the 3rd grade of the same school has a

larger number of students, teaching the 3rd grade is not relevant to the curriculum within which the master 's thesis at hand has been written, even though a more numerous test group might have given a bigger statistical knowledge at the end of the study.

In the course of conducting this study, 6th grade students used two different learning techniques to learn lexical phrases relevant to their curriculum based on their grade's coursebook *I Love English 4* (ILE 4). Such a source was chosen as the basis for the study to again create as normal learning conditions as possible for the students in the hope of this contributing to the validity of the results.

2.3 Methodology and procedure

The general framework of the methodology used to conduct the study is presented in Figure 1.

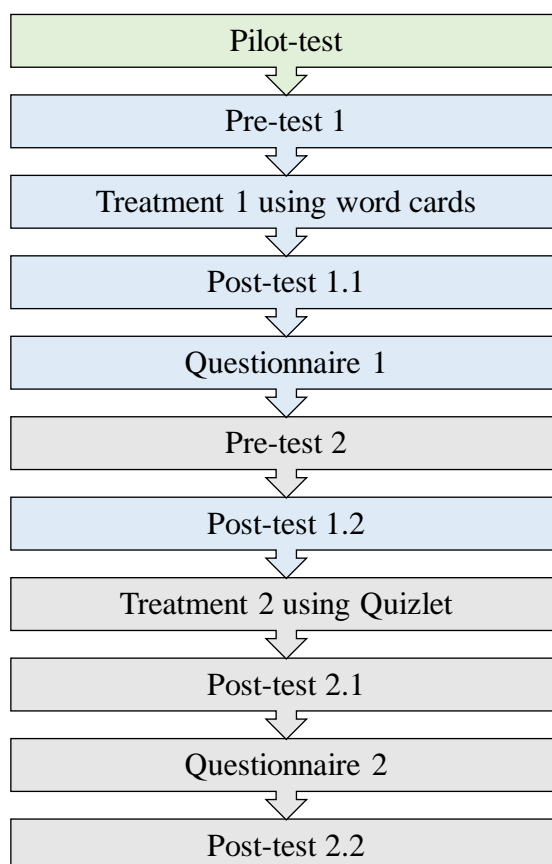


Figure 1. *The general framework of the methodology.*

Before the beginning of the study, a pilot test was conducted with the students. In the pilot test, the students were given 14 phrases in English and 17 phrases in Estonian and they were then asked to match the phrases to their translations. The study was first planned to evaluate the students' ability to match phrases and their translation before and after the treatments and assess the extent of knowledge growth. However, it was found that matching a term and translation resulted to be very easy for the students as even the weaker students in the class managed to score very high in the pilot test. The average result in the pilot test that required students to match term and translation was 84% (see Figure 2), which allows to suggest that with some of the phrases, some students simply managed to guess the correct answer or find the correct answers using exclusion. This coincides with Nation's suggestion (2003: 349) that multiple-choice answers "[are] generally the easiest of the item types for ././ learners to answer". Additionally, Stuart Webb believes that matching might give misleading results as it allows students to answer correctly without possessing real knowledge on the subject at hand (Webb 2008: 81).

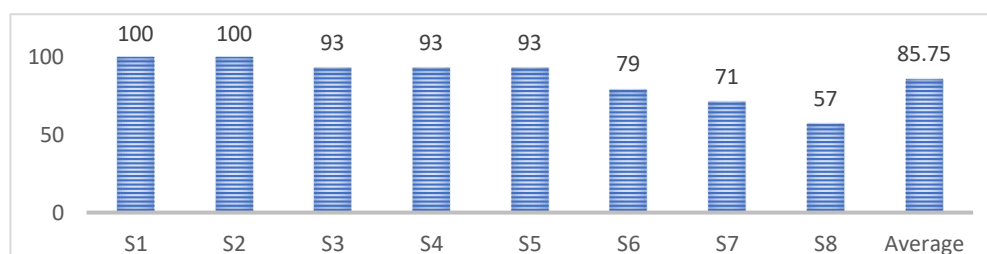


Figure 2. Results of the pilot test.

Therefore, despite the good results, the author of the thesis doubted that the students would be able to recall the lexical phrases in question themselves. In other words, it is believed that while the students had the ability to match phrases and their translations, it is unlikely they would have been able to produce the phrases in question themselves and use them correctly. After discussing the questionable value of results gathered from matching exercises, Nation (2003: 351) explains that using translations, even if sometimes discouraged, is a good way to “convey and test word meaning.”

It was therefore concluded that the pre- and post-tests should be designed in a way in which the students would be required to produce translations as they would be asked to translate the L2 (English) phrases given to them into L1 (Estonian). The following procedure was followed with the word card and Quizlet treatments to carry out the comparative study.

- 1) The students take a pre-test 1 (see Appendix 2) to determine their prior knowledge of the first set of lexical phrases. The group are given a worksheet containing a set of new phrases in English and they are asked to translate the phrases from English into Estonian to the best of their knowledge.
- 2) The group learns the same set of lexical phrases using word cards.
 - 2.1 The students are given lexical phrases in Estonian, and they are asked to find the English equivalents for them from a text in the ILE 4 Students Book. The phrases and their translations are then checked with the teacher, and only then can the students write the word cards, thus ensuring that all the students have correct data in their cards. The students are given blank word cards with a size of 4x7cm onto which they write the phrases to be studied. One side of the card features the phrase in English and the other its Estonian translation
 - 2.2 Once the cards are finished, the students use them to learn the phrases in class. The activities the students perform with the word cards are, in part, similar to those that can be used in Quizlet. One activity used is Flashcards, where students spread the cards out on the table, Estonian side up, and try to recall the English equivalent. They pick a card and try to recall the translation of the phrase written on it and then check the other side of the card to see if they had the correct answer. Should they not be able to recall the translation, they will look at the other side of the card to remember it. If they guess the translation correctly, they can leave the card turned around. If

not, they put the card back down, Estonian side up, and move on to the next phrase to come back to the first phrase later for repeated practice. Another activity is matching, where the teacher puts the Estonian phrases up on the classroom walls and the students bring their cards to the correct phrase as fast as they can. They are advised to only look at the English side of their cards. Feedback follows once the activity has been completed as the correct sentences are read out loud to the students and they check their correct answers. The last activity carried out with word cards is a gap-fill activity where gapped sentences are shown on a screen and students are tasked to choose one card from their word cards and hold it up. The students get immediate feedback from the teacher as well as their fellow students. As the preparation process of the cards and the activities carried out around the classroom takes quite a bit of time, there was sufficient time to carry out only three exercises.

- 3) The next day after studying the phrases, the students take the first post-test 1 (see Appendix 3) where they must complete two exercises. In the first exercise, the students are asked to translate the English phrases into Estonian and the second exercise is a gap-fill activity with the same phrases. In doing so, it is possible to see whether the students have not only memorized the translations of the phrases, but whether they also understand the meaning of the phrases and are able to use them correctly in a sentence.
- 4) The students answer questionnaire 1 regarding their experience in using word cards. They are allowed to choose between a version in Estonian or in English according to their own preference. The content of the questionnaires is the same (see Appendix 4).
- 5) The same group of students take the pre-test 2 for the second vocabulary set (see Appendix 5).
- 6) A second post-test 1 follows three weeks later. It has the same structure and content as the first post-test 1 (see Appendix 3), but the phrases and sentences in both exercises are

shuffled compared to the first post-test.

- 7) The students then learn a set of phrases using Quizlet. Before the students are given access to the phrases online, they are asked to find them from a text. They are first shown the Estonian phrase and they search for the translation from a text in their book. After the phrases have been found, the students log into Quizlet to study and revise the new vocabulary that has been uploaded there by the teacher. Quizlet offers different activities among which the students themselves can choose which ones to complete and in which order they wish to complete them. The students are asked to use their personal accounts and the teacher monitors their work via the Quizlet Teacher subscription option. Using Quizlet Teacher, it is possible to find out which activities in Quizlet the students prefer to use. Figures 3 and 4 illustrate the choices the students made when learning via Quizlet.

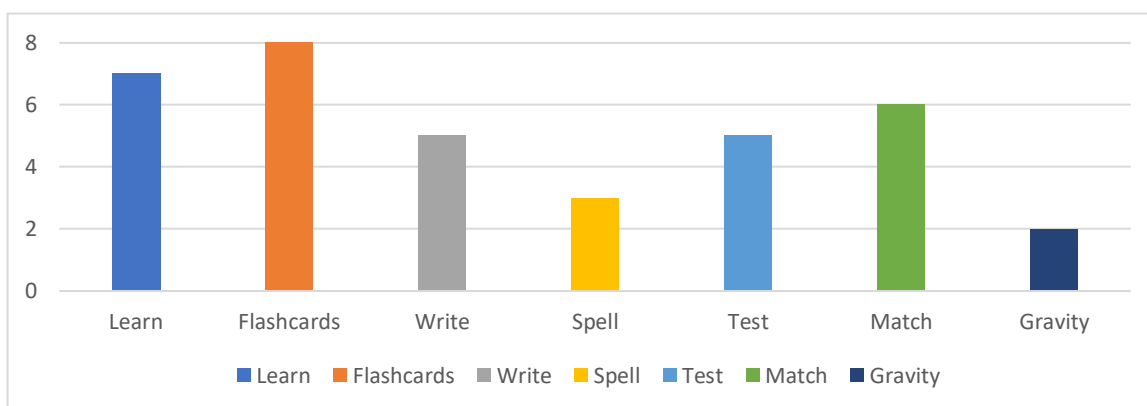


Figure 3. *The activities completed by each student in Quizlet.*

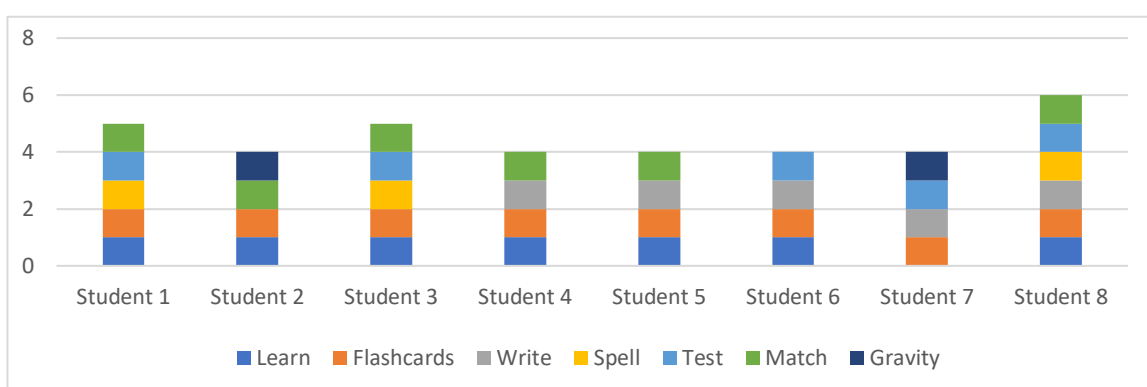


Figure 4. *The number of students who completed each activity in Quizlet.*

- 8) After learning the phrases using Quizlet, the students take the first post-test 2 (see Appendix 6) on the next day regarding the phrases learned. In the test, they must

complete two exercises. In the first exercise, the students are asked to translate the English phrases into Estonian and the second exercise is a gap-fill activity with the same phrases.

- 9) The students answer a small questionnaire 2 regarding their experience in using Quizlet (see Appendix 7).
- 10) A second post-test 2 (see Appendix 6) for the phrases learned using Quizlet follows three weeks later. It has the same structure and content as the first post-test 2, but the phrases and sentences in both exercises are shuffled compared to the first post-test 2.

As it was previously discussed, the promise of grades can create external motivation in the students. As the students had not learned the phrases before the pre-tests or revised them at home before the post-tests, they were explained that they would not receive a grade for the tests separately.

After concluding the two treatments and all the tests and questionnaire have been taken and filled in, conclusions can be drawn. Firstly, it can be found out which vocabulary learning technique led to better results in terms of the students' knowledge of the new phrases. To do this, different aspects of knowing a word will be investigated. Firstly, it will be examined how well the students are able to translate phrases from English to Estonian after each treatment. Secondly, it will be examined whether the students are able to use the phrases correctly in a gap-filling exercise. To complete the tests successfully, the students must thus be familiar with the written form of the phrases, know what the phrases mean and be able to use the phrase correctly in a sentence. Hence, by completing the tests successfully, the students will demonstrate their command of the receptive knowledge and use in all three aspects of knowing a word listed by Nation (2001: 27): form, meaning and use.

First, it will be investigated whether there are any significant differences in the growth of the students' knowledge of new vocabulary and whether one treatment worked

better than the other. In addition, it will be examined whether there are any differences in the students' knowledge of form or function in relation to which treatment was used. Secondly, an overview of the students' perceptions and feelings regarding the two techniques is given. It will be concluded whether it can be said that students liked one technique more than the other and which technique they would rather like to use in the future. To provide an insightful interpretation of the results, both qualitative and quantitative analysis of data is implemented to examine the findings of the study.

2.4 Results

The following section is divided into five parts. As the first research objective of the study is to find out how the effectiveness of using word cards compares with using the online learning tool Quizlet when teaching new vocabulary to A2 level EFL learners, the first two parts describe the changes recorded in the students' vocabulary knowledge prior to and following the word card and Quizlet treatments respectively. The third part delves more deeply into comparing the results of the two learning techniques to investigate whether one of the treatments yielded better results.

The second objective of the present thesis is to find out the students' opinions about using word cards and Quizlet to learn EFL vocabulary. Parts four and five of this subchapter thus focus on the students' opinions. The results of the questionnaires are presented and summarised to explain what are, according to students, the main issues and benefits of using word cards and Quizlet when using them to learn EFL vocabulary.

To present the results, the students' scores have been converted into percentages out of one hundred. A flexible assessment technique was used when grading the tests, with each correct answer giving two points and a partly correct answer giving one point. For example, when a phrase was translated only partly but in a way where the student's idea

was still correct, the answer was considered to be semi-correct. Similarly, if a student chose the correct phrase to fill a gap in the gap-filling exercise but wrote down the correct phrase in a way where the written form of the phrase was incomplete or incorrect, one point was given instead of two.

Both quantitative and qualitative analysis of data is implemented to provide more insightful interpretation of the results. To provide a systematic overview, the results have been analysed using Microsoft Excel's Descriptive Analysis and t-test: Paired two Sample for Means analysis tools. The responses to the questionnaires filled in by the students are analysed qualitatively as all the answers to the open questions are examined and summarised. The answers to the questionnaires presented to the students on a five-point scale are also summarised and analysed. Additionally, the test results of individual students are examined and some key aspects regarding them are analysed.

2.4.1 Levels of vocabulary knowledge prior to and following the word card treatment

The first learning technique used in the study was using word cards. As seen in Table 1, the dependent *t*-test found that the post-test 1.1 score of using the word card technique ($M = 85.16$) was higher than its pre-test 1 score ($M = 38.17$), $t(7) = 8.69$, $p < .05$. This result indicates that when using word cards to study, the vocabulary knowledge of the students improved significantly.

		<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Total gain	Pre-test 1	8	38.17	22.32			
	Post-test 1.1	8	85.16	12.21	8.69	7	.000*

*Indicates statistical significance at the 0.05 level

Table 1. Comparison of the pre- and post-test 1 results when learning with word cards.

As seen in Table 2, the dependent t -test found that the post-test 1.2 score of using the word card technique ($M = 85.64$) was slightly higher than the post-test 1.1 score ($M = 85.16$), $t(7) = 0.17$, $p > .05$. This result indicates that while the students' knowledge somewhat improved between post-test 1.1 and post-test 1.2 when using word cards, there is no statistical difference. However, it is clearly shown that the student's knowledge of the phrases studied did not deteriorate in the two weeks between the two post-tests.

		n	M	SD	t	df	p
Total gain	Post-test 1.1	8	85.16	12.21			
	Post-test 1.2	8	85.64	10.50	0.17	7	.867

*Indicates statistical significance at the 0.05 level

Table 2. Comparison of the post-test 1 and post-test 2 results when learning with word cards.

2.4.2 Levels of vocabulary knowledge prior to and following the Quizlet treatment

Tables 3 and 4 show the test scores for the second technique, using Quizlet. As seen in Table 3, the dependent t -test found that the post-test 2.1 score of using Quizlet to study vocabulary ($M = 83.12$) was higher than the pre-test 2 score ($M = 30.81$), $t(7) = 7.25$, $p < .05$. This result indicates that the vocabulary knowledge of the students improved significantly when using Quizlet to study.

		n	M	SD	t	df	p
Total gain	Pre-test 2	8	30.81	14.66			
	Post-test 2.1	8	83.12	25.35	7.25	7	.000*

*Indicates statistical significance at the 0.05 level

Table 3. Comparison of the pre- and post-test 1 results when learning with Quizlet.

As seen in Table 4, the dependent t -test found that the post-test 2.2 score of using the word card technique ($M = 78.42$) was lower than the post-test 2.1 score ($M = 83.12$), $t(7) = -1.85$, $p > .107$. This result indicates that while the vocabulary knowledge of the students

deteriorated between post-tests 2.1 and 2.2 when using Quizlet, there is no statistical difference.

		<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Total gain	Post-test 2.1	8	83.12	25.35			
	Post-test 2.2	8	78.42	23.45	-1.85	7	.107*

*Indicates statistical significance at the 0.05 level

Table 4. Comparison of the post-test 1 and post-test 2 results when learning with Quizlet.

2.4.3 The comparative results of word card and Quizlet treatments

According to the points gained in the pre-tests, the first set of phrases seems to be slightly more familiar for the students than the second one. However, the comparative results of the two pre-tests (see Table 5) show that there is no statistical difference in the students' knowledge of the phrases to be learned prior to the treatments. This indicates that it is possible to compare the students' vocabulary knowledge gains using the two sets of phrases given.

		<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Initial knowledge	Pre-test 1	8	38.17	22.32			
	Pre-test 2	8	30.81	14.66	1.242	7	.254*

* Indicates statistical significance at the 0.05 level

Table 5. Comparison of the pre-test 1 and pre-test 2 results.

Table 6 shows the comparative mean gain scores of learning with word cards and Quizlet by looking at three different aspects – total gain, the ability to translate the phrases and the ability to use the phrases correctly in a sentence.

When comparing the gains of using both word cards and Quizlet to study, there is no statistical difference between the mean gain scores of the two techniques. As seen in Table 6, the dependent *t*-test found that the total gain of using the word card technique ($M = 85.64$)

was higher than that of using Quizlet ($M = 78.41$), $t(7) = 1.21$ $p > 1.333$; however, the result indicates that there is no statistical difference.

Another way to analyse the data collected from the tests is to examine the results from the different exercises separately. All post-tests consisted of two exercises, one translation exercise and a gap-filling exercise. When considering only exercise one of the post-tests where students were asked to translate the phrases, Table 6 shows that using the word card technique ($M=88.46$) yielded somewhat better results than using Quizlet ($M = 80.80$), $t(7) = 0.96$ $p > 0.186$ but there is again no statistical difference between the two.

The results also indicate that learning using word cards yielded slightly better test results ($M=82.81$) than using Quizlet ($M = 76.04$), $t(7) = 1.20$ $p > 0.134$ concerning the gap-fill exercises. However, again, there is no statistical difference between using the two techniques.

		<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Total gain	Word cards	8	85.64	10.50	1.21	7	1.333
	Quizlet	8	78.42	23.45			
Translation	Word cards	8	88.46	7.91	0.96	7	0.186
	Quizlet	8	80.80	22.01			
Use	Word cards	8	82.81	24.03	1.20	7	0.134
	Quizlet	8	76.04	27.25			

Table 6. Comparison of the pre-test and post-test 2 mean gain scores when learning with word card and Quizlet techniques.

Table 7 shows the test results all eight students scored in each of the six tests taken over the course of the study. The review of these results shows an overall trend of a considerable improvement from pre-test 1 to post-test 1.1. All of the students' results improved significantly after the first treatment. The results show that five out of eight students' (S1, S2, S3, S4, S5) results somewhat deteriorated between post-test 1.1 and post-

test 1.2. However, in the case of three students, the results from post-test 1.2 are higher than those from post-test 1.1. The material was not reviewed in class between the two tests and to the knowledge of the author, the students did not review individually either. The improvement in the delayed test scores may be a result of better concentration. As post-test 1.1 and 1.2 had the same content and sentences, it might be that students 6, 7 and 8 were simply better prepared for the test that awaited them, and this helped them score higher on the second post-test 1.

Similar trends can be seen in individual students' results with the second study technique. A significant improvement in student results can be seen between all pre-test 2 and post-test 2.1 results. Again, the results show that five out of eight students' (S1, S3, S4, S6, S7) results somewhat deteriorated between post-test 2.1 and post-test 2.2. As there was no spaced repetition, this is to be expected. However, in this case, we see that the decline of scores was somewhat bigger than it was when using word cards. For example, S4 shows a decline from 91.07% to 86%. Nevertheless, some students again showed improvement between post-test 2.1 and 2.2. In the results of students 2, 5 and 8, a small growth of scores is recorded.

	<i>S1</i>	<i>S2</i>	<i>S3</i>	<i>S4</i>	<i>S5</i>	<i>S6</i>	<i>S7</i>	<i>S8</i>
Pre-test 1	42.86	50	60,71	42.86	32.14	64.26	1.78	10.71
Post-test 1.1	98.22	91.52	90.18	91.52	89.73	87.06	71.43	61.60
Post-test 1.2	91.52	84.66	89.73	90.18	83.48	98.22	84.82	62.5
Pre-test 2	46.43	14.29	46.43	39.29	25	42.86	21.43	10.71
Post-test 2.1	94.65	93.49	91.07	91.07	96.88	96.43	79.47	21.88
Post-test 2.2	92.27	94.65	86.31	79.77	98.21	77.98	73.81	24.41

Table 7. The test results of all eight students in percentages.

When talking about learning with word cards, all of the students scored over 50% in the post-tests, which shows that in a real-life situation, this study technique would serve to

help students reach a positive grade. In the case of leaning with Quizlet, seven out of eight students also show good test scores of over 50%. One student (S8), however, scored less than 50% on their post-tests when learning with Quizlet. Their post-test 2.1 and 2.2 results were 21.88% and 24,42% respectively. The same student scored 61.6% on post-test 1.1 and 62.5% in post-test 1.2 when learning with the help of word cards. As seen in Figure 4 (see page 35) S8 completed six activities in the online tool. This is more than the other students. Still, the results of S8 are lower than those of their fellow students. This gives the implication that using online tools might not work well for all students as using paper word cards yielded significantly better results in the case of this particular pupil. It is possible that when completing activities in Quizlet, S8 aimed for speed and quantity, not quality and completed the activities without thinking much about the answers.

2.4.4 Attitudes of students towards using word cards as a vocabulary learning tool

After having completed the treatment using word cards, students filled in a questionnaire regarding their experience and attitudes towards using word cards to study lexical phrases. The first three questions of the questionnaire are open-ended questions and questions 4-12 are on a five-point scale with multiple-choice answers.

Firstly, the students were asked whether they had ever used word cards previously and five out of eight students said that they had never used word cards to study before. Secondly, in questions two and three the students were asked to list the things they liked most and least about using word cards. Among positive aspects, four students mentioned the fact that using word cards made learning easy for them and one student mentioned that they enjoyed not having to use a phone. Coinciding with the positive aspects cited in the studies regarding the use of word cards (Wilkinson 2017: 11), one student said they liked having both the Estonian and English phrases and so could choose whether they looked at the L1 or

L2 meaning first. Interestingly, the need for *writing* was mentioned by different students among both positive and negative aspects which means that some students appreciate having to physically write through all the words whereas others find it tedious. During an oral discussion, one student added that their parents always make them write words out as it makes memorizing vocabulary easier.

Among the negative aspects, four students mentioned that word cards kept getting lost very easily and were difficult to preserve. This concedes with the belief that students value accessibility highly (Li and Hafner 2022: 75) and they want to be able to have access to materials outside of class as well. They are unaccustomed to carrying small paper cards with them and this caused them inconvenience. Additionally, one student mentioned that there were too many cards, and one student even went as far as to call the cards “a waste of paper”. When asked about the statement, they explained that in their opinion, too much paper was used.

Questions four to twelve were presented to the students on a five-point scale where the response options ranged from disagree completely to agree completely. The results (see Figure 5) show an overall positive response to using word cards as six out of eight people said they enjoyed learning with word cards and four people said that they rather enjoyed or enjoyed preparing the cards and three students neither thought positively nor negatively of preparing the cards.

The students seem to also believe that using word cards helps them in mastering the vocabulary being studied as four out of eight pupils completely agreed that word cards provide help learning the written form of the words and only one person believes word cards did not help them learn the written form of the lexical phrases. In the case of learning the meaning of the phrases, five learners out of eight agree completely or rather agree that word cards were helpful in the study process.

When asked about the exercises used in class to study vocabulary using word cards, five students stated that they enjoyed them and two neither liked nor disliked the exercises. This indicates that they liked some of the exercises but not others. One student responded negatively and said she did not like the exercises. Consequently, six out of the eight students questioned stated that they would like to use word cards again in school and five said they would also enjoy using them at home or were indifferent. As to using word cards at school, only one person gave a negative response; however, using word cards at home created a

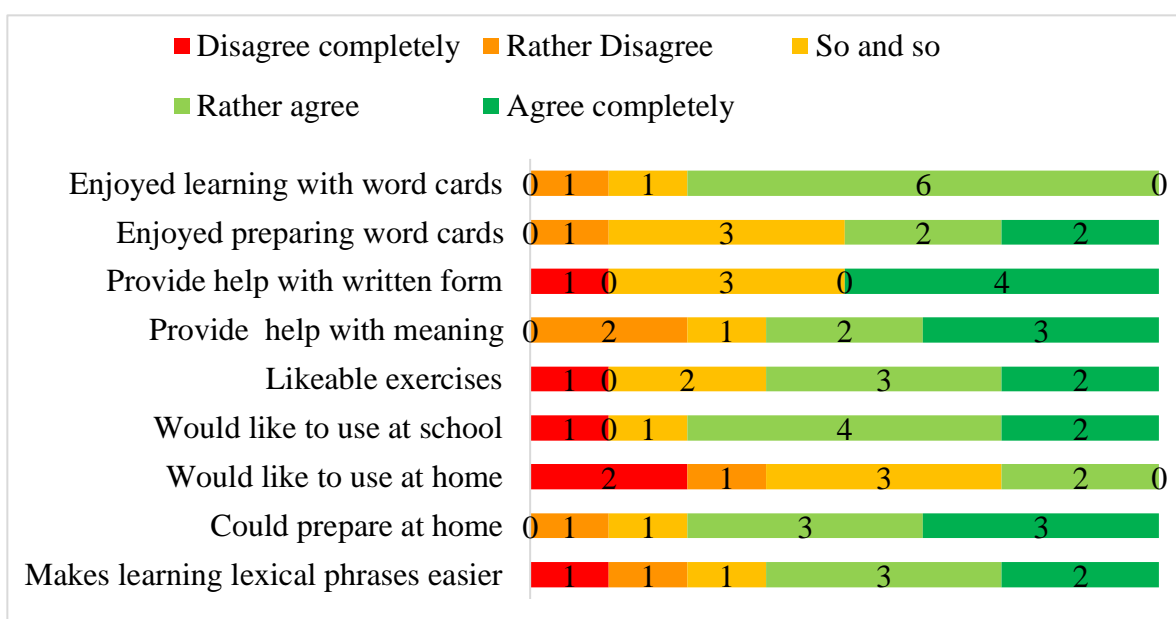


Figure 5. Students' attitudes towards using word cards.

bigger disagreement among students as 3 pupils were against it. Nevertheless, six students claimed that they would be able to prepare such cards at home on their own.

The final question served to find out whether the students feel that using word cards to study phrases gave them an advantage over simply using their students book. Five people agreed, one remained impartial and two disagreed. This suggests that most of the students liked using the new learning technique and found it beneficial. The students who did not think that it benefited them might have been inclined by their dislike of writing or using too much paper when a more environmentally friendly alternative exists.

This data suggests that, for the most part, students enjoy using word cards to study vocabulary and would like to do so again at school as most of them see it as a beneficial technique for developing their vocabulary knowledge. The students seem slightly reluctant to prepare the cards as only four out of eight students enjoyed preparing them and only two said they would like to use such cards again at home. This issue could be fixed by handing the students ready-made word cards; however, writing the cards is part of the learning process as it forces students to produce the word on paper, even if they are simply reproducing it by copying from somewhere.

2.4.5 Attitudes of students towards using Quizlet as a vocabulary learning tool

Similarly to the process that the students underwent with using word cards, they also filled in a questionnaire regarding their user experience with Quizlet. Again, the first three questions are open-ended questions and questions four to twelve were presented to them on a five-point scale with multiple-choice answers.

The first three open-ended questions revealed one big difference between using word cards and Quizlet as it was revealed that 100% of the students have used the online learning tool before. The aspects that the students liked about Quizlet correlate with motivational aspects pointed out in relevant literature. For example, convenience was mentioned by students in the study by Li and Hafner (2022) and also in the present study, as some students mentioned always carrying their phone on their person but think that taking word cards with them would prove to be inconvenient. Additionally, two students mentioned that going through different exercises quickly was interesting and two other students stated that using Quizlet was easy. Another two people said that they liked using a phone over a notebook or student's book.

While quick and automatic feedback has been pointed out as a positive motivational aspect in many studies (Li and Hafner 2022, Amer 2014), the results of this study somewhat contradict those claims as it seems that some students have a problem with the automatic feedback. Three students stated that in the exercises where the students must type in the answer, the answer they enter needed to be correct word for word and any small mistakes or typing errors made the answer be considered incorrect. Students felt that they did know the meaning of the lexical phrases asked but sometimes wanted to either paraphrase or simply mistyped on the keyboard and therefore felt that they were assessed too strictly which was frustrating for them.

One person also stated that the exercises were too long and another one felt that logging into Quizlet was inconvenient for them as they forgot their password and they often have trouble signing into different web pages.

Questions four to thirteen were presented to the students on a five-point scale where the response options ranged from disagree completely to agree completely. The results (see Figure 6) show an overall positive response to using Quizlet as five of the students said they enjoyed learning with the online tool and no one disagreed. Three students chose the option “so and so” meaning they neither liked nor disliked using Quizlet, which might mean they enjoyed some of the aspects about it but not others.

When asked about their readiness to produce similar word cards in Quizlet themselves, four out of eight students answered that they rather disagree and another four answered “so and so”. This means that the students do not feel prepared to take the responsibility for preparing their own study materials on the Internet or they are not ready to take the initiative to learn any phrases without being told to do so by the teacher. Another reason for which they might feel unwilling to prepare online word cards in Quizlet might be that during the treatment, they did not have the opportunity to try out creating word entries

in Quizlet. However, during the treatment using word cards, the students did have the chance to prepare their own word cards.

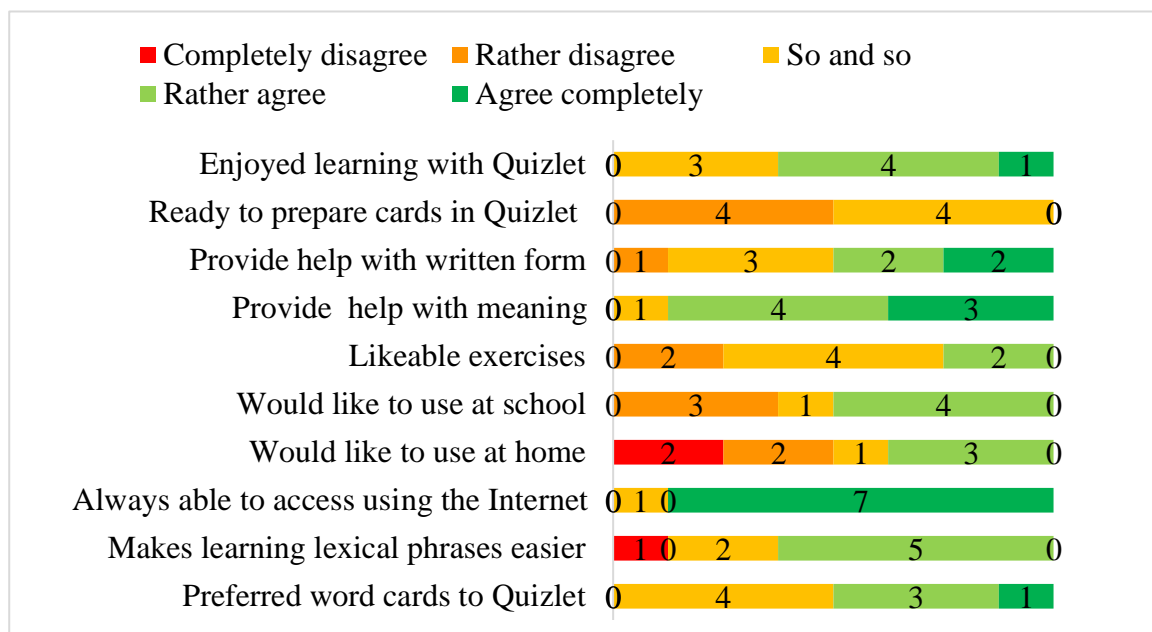


Figure 6. Students' attitudes towards using Quizlet.

The students seem to believe that using Quizlet helped them in learning new vocabulary. Four students state that using Quizlet helped them learn the written form of the word and three state that it was “so and so”. The results are especially positive when asked about learning the meaning of the phrases, as seven students agree that using Quizlet helped them master the meaning of the new phrases and one person one again stated “so and so”, probably referring to the fact that they managed to master some of the phrases but not all of them.

When asked about the exercises that Quizlet offers to learn and practise the phrases, the results came back mixed as two people stated that they rather did not like the exercises and another two stated that they rather did like them. Four people chose the “so and so” option possibly meaning that they liked some of the exercises but not all of them. The data received through the Quizlet Teacher subscription reveals that the most popular exercises were Flashcards (played by all of the students), Learn (played by seven of the students) and Match (played by five students) while Gravity was only played by one student and the Spell

activity was completed by three students. This reveals that the students prefer the activities where they work with flashcards and multiple-choice answers or matching, and they would rather not use the activities where one is required to use productive skills like writing down the phrases or their translations.

After having completed the questions about likes and dislikes, the students reached the questions asking about their study preferences regarding the future. Four people state that would want to use Quizlet again at school and three people state that they would like to use it at home as well. One person is impartial to using Quizlet again at school and at home as well. Three students stated that they would rather not use Quizlet again at school. According to the data collected, half of the students would not want to use Quizlet to study vocabulary at home as two people answered that they would rather not do it and another two answered they completely disagree to using it at home. Nevertheless, when asked about access, seven students out of eight stated that they would be able to always access Quizlet via the Internet at home and one person stated that they would sometimes be able to access it but not always.

The final question served to find out whether the students feel that using Quizlet to study phrases gave them an advantage over simply using their student's book. Five people agreed, two remained impartial and one disagreed. This suggests that most of the students liked using Quizlet and found it beneficial. The two students who answered with "so and so" might feel that using the online tool helped them in some aspects but there are aspects at which Quizlet could be improved.

Compared to the questionnaire regarding word cards, an extra question was added to the end of the second questionnaire where the students were asked to compare using word cards and Quizlet and choose which they preferred. When asked if they preferred word cards to Quizlet, four students agreed and another four students chose the answer "so and so"

meaning they could not decide whether they preferred Quizlet or word cards. This suggests that the students, in general, enjoyed using paper word cards more than the online learning tool (See Figure 6).

The results imply that the students prefer using pen and paper to an online study tool and feel that they would prefer using word cards to Quizlet at school as they liked the exercises performed with word cards better. The suggestion that learners have a positive attitude towards the use of word cards coincides with earlier studies on the topic (Wilkinson 2017, Kuo and Ho 2012). However, when asked about study results, seven out of eight students believe that using Quizlet helped them learn the meanings of new lexical phrases and only five students believe that word cards helped them learn the meanings of new lexical phrases. In case of the written form of the phrases, four students believe that both Quizlet and word cards helped them master the written form of the phrases. This means that the students believe that their knowledge of meaning improved more than their ability to spell the phrases.

2.5 Discussion

The aim of the study was to investigate the use of two different learning techniques on 6th grade students and answer the following research questions:

1. How does the effectiveness of using word cards compare with using the online learning tool Quizlet when teaching new vocabulary to A2 level EFL learners?
2. According to the students, what are the main issues and benefits of using word cards and Quizlet to study EFL vocabulary?

To find an answer to the first research question, the students learned two different sets of lexical phrases using two different vocabulary learning techniques. Students first took a pre-test to assess their knowledge of the first set of phrases to be learned, then underwent treatment using word cards, and following that took two post-tests, one immediate and one

delayed, to assess the gains derived from using the technique. The same process was followed with the second set of lexical phrases. However, the treatment included using Quizlet to improve the students' vocabulary knowledge rather than using word cards. To answer to the second research question, the students were asked to fill in a questionnaire regarding each learning technique after having used it.

The results of the vocabulary tests taken after the treatments revealed that both using word cards and Quizlet to study significantly contributed to improving the students' knowledge of the phrases being learned. The comparison of the overall post-test results revealed that learning with word cards yielded slightly higher test results than learning with Quizlet. While no statistical difference was found in the total gains when comparing the two techniques, using Quizlet showed a higher initial gain of knowledge than using word cards as the initial pre-test scores for the phrases to be learned using Quizlet were lower. However, the results of the second post-tests revealed that the students' knowledge gained using Quizlet had somewhat deteriorated in the weeks between the post-tests and somewhat improved for the phrases learned with the word cards. The fact that the students' scores decreased between post-test 1.1 and post-test 1.2 when using Quizlet to study and did not decrease between post-test 2.1 and post-test 2.2 when using word cards supports earlier findings in the literature on this topic (Ihara et al 2021, Mangen et al 2015) that suggest the superiority of longhand writing over typing on a computer when memorising information. In fact, when using paper word cards, there was a very small, not statistically relevant improvement in the students' results between post-test 2.1 and post-test 2.2. It is not possible to say exactly what the increase in knowledge resulted from because the students did not revise the phrases between the two post-tests. It is also possible that during post-test 2.2 they simply concentrated better.

The results of the tests also correlate with the students' own perceptions regarding the two techniques retrieved from the questionnaires as half of the students claimed having liked using word cards more than using Quizlet. One possible reason as to why the students seem to have somewhat higher preference for using word cards as opposed to Quizlet might lay in the fact that all the students have used Quizlet before whereas word cards was a new study technique for more than half of the students. It is possible that the students preferred word cards over Quizlet for the simple reason of it being a new and refreshing way to study words for them.

While 87.5% of the students themselves believe that using Quizlet helped them learn the translations of new lexical phrases and 62.5% of students think the same about using word cards, then in reality, learning with word cards yielded better results. This may indicate that the feedback given by Quizlet might not be entirely accurate when the application is used for a short amount of time. Additionally, it indicates that the students have trouble assessing whether they have mastered a lexical item or not on their own. One of the possible reasons behind students saying that they would rather not use computers in class is offered by Sydorenko et al (2017: 212) who explain that "Learners who [have] had higher exposure to technology in the classrooms [are] more motivated to use technology to learn a FL [and] more /.../ convinced of its benefits." Therefore, it might be that the group studied in this thesis simply did not feel comfortable with using computers to learn FL phrases. This, however, is not very probable as the author of the thesis knows the students use computers and tablets at least on a monthly basis. Additionally, the students themselves stated having used Quizlet to study before in one of the questionnaires given to them. However, it must be stated that the students had not used Quizlet before to study during the English lesson.

One very important factor to consider when choosing a technique for the students to use to learn either phrases or anything similar is user friendliness or accessibility. The

findings of the present thesis affirm the beliefs stated in related literature (Li and Hafner 2022) regarding the fact that using TELL makes it easier for the students to access relevant information outside of school as many students listed losing some of the paper word cards as a problem with using them and accordingly stated that they always have online word cards in Quizlet with them as they usually do not part with their mobile devices but rather always carry them with them.

As for the limitations of this study, it must be said that its results do not reveal a complete picture of the topic. The results of this study come from a convenience-based sample (Battaglia 2008: 149) as the author chose students from a class easily available to her as they study at the school the author works at. Additionally, the findings reported in this thesis have been obtained from a small-scale study and thus the results should not be generalised to being representative of all EFL students in Estonia or even in one school as each class and school consists of very different students. Still, the results give pedagogists an implication of what 6th grade students' believe to be the main issues and benefits regarding the two learning techniques. In addition, it can clearly be stated that both techniques served to improve the students' knowledge on a certain topic with no real statistical difference between the two. Further research might benefit from a bigger and a more diverse test group with students from different ages and with a more diverse background.

Another limitation to the study involves the degree of differences between the two study techniques. Even though both techniques involved the students locating the phrases in question themselves from their Student's Book and using flashcards or word cards to study, the setting and activities with both techniques differed to a degree. When using word cards, the students completed three activities presented to them by the teacher. The activities were learning with flashcards, matching, and gap-filling. However, when learning using Quizlet,

the students had a choice between seven activities. They were given 25 minutes to complete the exercises they wished to complete in the order they preferred. Figure 4 (see page 35) shows that when using Quizlet, the students prefer to use exercises that are somewhat similar to those that can be carried out in the classroom with regular word cards. Learn, Flashcards and Match activities were used the most, while the game called Gravity was played only twice. When learning using word cards, the students completed three exercises and when studying via Quizlet, most students completed four or five exercises (see Figure 4 on page 35).

Based on the results it can be stated that both using word cards and Quizlet are valid techniques to study vocabulary as the test results indicate a growth in the students' knowledge after using both techniques. Using word cards yielded slightly better results. The difference, however, was not statistically relevant. While the students generally enjoyed using both study techniques, they preferred word cards to Quizlet. The most positive and negative aspects highlighted were that while word cards make learning easy, they are difficult to maintain as they tend to get lost easily. While Quizlet was mentioned to be more user-friendly, its strict automatic feedback demotivated some students.

The results of the study indicate that using both paper word cards as well as the online learning tool Quizlet are acceptable and effective ways to study vocabulary. It has been proven that students' vocabulary develops using both techniques, and so both can and should be used in language lessons, as a variety in activities at an EFL lesson is certainly welcome.

CONCLUSION

To be able to communicate in a foreign language, one needs to possess a large amount of vocabulary. We can neither understand nor produce any language without possessing lexical knowledge. To have a good command of a foreign language, one must make an effort to learn its vocabulary. To achieve the highest possible level and sound naturally when communicating in a foreign language, it is recommended to learn phrases, not individual words, as this minimises the time language users spend on processing when communicating in a FL.

There are dozens if not hundreds of language learning techniques out there and with the emergence of technology in the last decades, the selection has only expanded. There is a long history of research regarding different vocabulary learning techniques; however, with the emergence of online learning tools, it has become clear that comparative studies should be conducted to grasp the differences in the effects of using so-called traditional techniques and online learning tools. Among the most popular vocabulary learning techniques are using paper word cards as well as using the online learning tool Quizlet that features a flashcards option as well as different activities that can be carried out with the phrases being learned using the application.

The thesis aimed to investigate the comparative effects of using word cards and Quizlet through answering two research questions:

1. How does the effectiveness of using word cards compare with using the online learning tool Quizlet when teaching new vocabulary A2 level EFL learners?
2. According to the students, what are the main issues and benefits of using word cards and Quizlet to study EFL vocabulary?

A study conducted among the 6th grade students at a small rural school in Western Estonia consisted of two parts: a comparative study of the results of using the two different learning techniques and a questionnaire.

Before the study, the students' preliminary vocabulary knowledge was established by administering a pre-test, subsequently, a treatment was carried out using word cards, which, in turn, was followed by two post-tests, one immediate and the other delayed. The same procedure was repeated using Quizlet as the treatment technique.

The results of the study revealed that both word cards and Quizlet yielded good results in improving the students' vocabulary knowledge. There was no statistical difference between the two learning techniques; however, using word cards resulted in slightly higher results in terms of the total gain, translating the phrases and using them in a gap-filling exercise. This refers to the superiority of handwriting, which has been mentioned in previous research on the same topic (Ihara et al 2021, Mangen et al 2015). As all the individual students' results were not uniform and some students benefited more from using word cards and others from using Quizlet, the results indicate that it may be useful to let students choose which vocabulary learning technique they wish to use.

Following each treatment, the students were also asked to fill in a questionnaire regarding their attitudes towards using each technique. The results of the questionnaires revealed the main positive and negative aspects the students perceived in connection to using the techniques.

Regarding word cards, the students stated that it is easier to learn using them as they provide the translations; however, they are not very user-friendly as the cards tend to get lost and are uncomfortable to carry around. In the case of using Quizlet, in contrast, students cited user friendliness as a positive aspect as they usually have a smartphone with them that Quizlet can be accessed through. The feedback concerning user friendliness that was

received from the students coincides with earlier findings on the topic as Li and Hafner (2022) also found that students value the portability and accessibility using mobile devices offers and thus find carrying paper word cards around tedious. Another negative aspect mentioned concerning Quizlet was the fact that the automatic feedback the online tool gives is very strict and leaves no room for minor errors. This contradicts earlier findings that state that learners appreciate receiving feedback from online learning tools as it gives them a feeling of advancement (Amer 2014).

Overall, half of the students stated having liked using word cards over using Quizlet. This may be due to the fact that the students felt that word cards helped them master the written form of the words to a higher level or because they simply do not feel comfortable with using a computer to study in class. Sydorenko et al (2017) also suggest that the more students have the chance to use computers in class, the more they believe in the benefits they offer. The questionnaires also revealed that students feel that both word cards and Quizlet make learning lexical phrases easier for them. It can therefore be concluded that using both learning techniques is justified in language classes, and both yield adequate results in improving the students' vocabulary knowledge.

The findings of the present study could be used by educators in helping them choose adequate techniques for teaching EFL vocabulary in class. Additionally, the findings give an insight into the students' own perceptions regarding two learning techniques. It is important to keep in mind that all students are not alike and their liked and dislikes vary. However, the findings of the present thesis give some insight into what aspects the students like and dislike most regarding two learning techniques. Pedagogists can use these findings as a guideline when choosing activities and learning techniques.

The results of this thesis do not give a complete overview on the topic of using word cards and Quizlet as vocabulary learning tools. Further research might benefit from a bigger

sample size and learners from different ages as it would be beneficial to see if the results obtained from this study also apply for younger and older learners. With further research, it could prove beneficial to also study the effects of these vocabulary learning tools on the students' productive vocabulary.

REFERENCES

Primary sources:

Kurm, Ülle and Ene Soolepp. 2015. *I Love English 4 Student's Book*. Tartu: Kirjastus Studium.

Secondary sources:

Amer, Mahmoud. 2014. Language Learners' Usage of a Mobile Learning Application for Learning Idioms and Collocations. *CALICO Journal*, 31: 3, 285-302. Available at https://www.jstor.org/stable/10.2307/calicojournal.31.3.285?seq=1&cid=pdf-reference#references_tab_contents, accessed April 24 2022.

Ames, Claire. 1992. Classrooms, goals, structures, and student motivation. *Journal of Educational Psychology*, 84: 3, 267-271. Available at http://groups.jyu.fi/sporticus/lahteet/LAHDE_17.pdf, accessed April 27 2022.

Battaglia, Mike. 2008. Convenience Sampling. In Paul J. Lavrakas (ed). *Encyclopedia of Survey Research Methods*. 149. Thousand Oaks: Sage 63 Publications. Available at <https://methods.sagepub.com/base/download/ReferenceEntry/encyclopedia-of-survey-research-methods/n105.xml>, accessed May 7, 2022.

Boers, Frank, June Eyckmans, Jenny Kappel, Hélène Stengers, and Murielle Demecheleer. 2006. Formulaic expressions and perceived oral proficiency: Putting a lexical approach to the test. *Language Teaching Research*, 10: 3, 245-261. Available at <https://journals.sagepub.com/doi/pdf/10.1191/1362168806lr195oa>, accessed April 4, 2022

Carroll, Susanne E. 1992. On cognates. *Second Language Research*, 8: 2, 93-119. Available at <https://www.jstor.org/stable/43104445>, accessed May 8, 2022.

Crystal, David. 2010. *The Cambridge Encyclopedia of Languages*. 3rded. United Kingdom: Cambridge University Press.

Chun, Dorothy M. 2019. Current and future directions in TELL. *Journal of educational technology & society*, 22: 2, 12-25. Available at <https://www.jstor.org/stable/26819614?seq=1&cid=pdf-reference>, accessed April 24 2022.

Davies, Norman F. 1976. Receptive versus Productive Skills in Foreign Language Learning. *The Modern Language Journal*, 60: 8, 440-443. Available at <https://www.jstor.org/stable/pdf/326052.pdf>, accessed April 28, 2022

Díaz, José L. C., 2016. Word cards: an effective or an obsolete strategy to learn the spelling, meaning and grammatical function of new vocabulary. *Pensamiento actual*, 16, 59-

76. Available at <https://revistas.ucr.ac.cr/index.php/pensamiento-actual/article/view/25190/25456>, accessed March 30, 2022
- Gairns, Ruth and Stuart Redman. 1986. *Working with Words: A Guide to Teaching and Learning Vocabulary*. United Kingdom: Cambridge University Press.
- Horst, Marlise, Tom Cobb and Ioana Nicolae. 2005. Expanding academic vocabulary with an interactive on-line database. *Language Learning & Technology*, 9: 2, 90–110. Available at https://scholarspace.manoa.hawaii.edu/bitstream/10125/44021/1/09_02_horst.pdf, accessed April 28, 2022
- Ihara, Aya S., Kae Nakajima, Akiyuki Kake, Kizuku Ishimaru, Kiyoyuki Osugi and Yasushi Naruse. 2021. Advantage of Handwriting Over Typing on Learning Words: Evidence From an N400 Event-Related Potential Index. *Frontiers in Human Neuroscience*, 15: June, 1-12. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8222525/>, accessed April 22, 2022.
- Janke, Vikki and Marina Kolokonte. 2015. False cognates: The effect of mismatch in morphological complexity on a backward lexical translation task. *Second Language Research* 31: 2, 137-156. Available at <https://www.jstor.org/stable/26478184>, accessed May 8, 2022.
- Kilickaya, Ferit and Jaroslaw Krajka. 2010. Comparative usefulness of online and traditional vocabulary learning. *TOJET: The Turkish Online Journal of Educational Technology*, 9: 2, 55-63. Available at https://www.researchgate.net/publication/286002604_Comparative_usefulness_of_online_and_traditional_vocabulary_learning, accessed February 18, 2022
- Kim, Heyoung and Yeonhee Kwon. 2012. Exploring Smartphone Applications for Effective Mobile-Assisted Language Learning. *Multimedia-Assisted Language Learning*, 15, 31-57. Available at <https://pdfs.semanticscholar.org/6540/2e5fdbbd462b1fd3a73ea0be5700d0e77953.pdf>, accessed April 4, 2022
- Kim, Hoe K. 2008. Beyond Motivation: ESL/EFL Teachers' Perceptions of the Role of Computers. *CALICO Journal*, 25: 2, 241–259. Available at <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.835.406&rep=rep1&type=pdf>, accessed April 24, 2022
- Kuo, Yihsiang and Hsiao-Yun Ho. 2012. Effects of word card strategy versus word list strategy on Taiwanese EFL junior high school students' vocabulary retention. *Electronic Journal of Foreign Language Teaching*, 9: 1, 26-45. Available at <https://e-flt.nus.edu.sg/wp-content/uploads/2020/09/v9n12012/kuo.pdf>, accessed January 15, 2022
- Li, Yan and Christoph A. Hafner. 2022. Mobile-assisted vocabulary learning: Investigating receptive and productive vocabulary knowledge of Chinese EFL learners. *ReCALL*, 34: 1, 66-80. Available at <https://www.cambridge.org/core/terms.https://doi.org/10.1017/S0958344021000161>, accessed April 26, 2022

- Lindstromberg, Seth and Frank Boers. 2008. *Teaching Chunks of Language*. Helbling Languages.
- Mangen, Anne, Liss G. Anda, Gunn H. Oxborougaha and Kolbjørn Brønneck. 2015. Handwriting versus keyboard writing: Effect on word recall. *Journal of Writing Research*, 7: 2, 227-247. Available at <https://doi.org/10.17239/jowr-2015.07.02.1>, accessed May 4, 2022
- Merriam-Webster. 2022. Answer the door. In Merriam-Webster.com dictionary. Available at <https://www.merriam-webster.com/dictionary/answer%20the%20door>, accessed May 8, 2022
- Mondria, Jan-Arjen and Siebrich Mondria-De Vries. 1994. Efficiently memorizing words with the help of word cards and “hand computer”: Theory and applications. *System*, 22: 1, 47–57. Available at https://www.rug.nl/staff/j.a.mondria/system_1994.pdf, accessed May 4, 2022
- Mueller, Pam A. and Daniel M. Oppenheimer. 2014. The Pen Is Mightier Than the Keyboard: Advantages of Longhand Over Laptop Note Taking. *Psychological Science*, 25: 6, 1159–1168. Available at <https://doi.org/10.1177/0956797614524581>, accessed February 18, 2022
- Nation, Paul. 2001. *Learning Vocabulary in Another Language*. Victoria University of Wellington: Cambridge University Press.
- Oxford English Dictionary Online. March 2022. Oxford University Press. <https://www.oed.com/view/Entry/114753?result=3&rskey=mWybhZ&>, accessed April 24, 2022.
- Põhikooli riiklik õppekava. 06.01.2011. Riigi Teataja. Available at <https://www.riigiteataja.ee/akt/129082014020?leiaKehtiv>, accessed May 4, 2022.
- Põhikooli riiklik õppekava. Lisa 2. Ainevaldkond „Võõrkeeled“. 06.01.2011. Riigi Teataja. Available at <https://www.riigiteataja.ee/aktilisa/1290/8201/4018/141m%20lisa2.pdf>, accessed May 4, 2022.
- Quizlet.com. 2022. *Quizlet Plus for teachers*. Available at <https://quizlet.com/upgrade?showTeacher>, accessed April 25, 2022.
- Quizlet Help Center. n. d. *Studying on Quizlet*. Available at <https://help.quizlet.com/hc/en-us/articles/360030841732-Studying-on-Quizlet>, accessed April 26 2022.
- Republic of Estonia Ministry of Education and Research. n. d. „Eesti võõrkeelte strateegia 2009–2015 (2017) täitmise lõpparuanne“. Available at https://www.hm.ee/sites/default/files/eesti_voorkeelte_strateegia_2009-2017_lopparuanne.pdf, accessed March 14, 2022.

- Reynolds, Barry L, Wei-Hua Wu and Ying-Chun Shih. 2020. Which Elements Matter? Constructing Word Cards for English Vocabulary Growth. *SAGE Open*, 2: 2, 1-12. Available at <https://doi.org/10.1177/2158244020919512>, accessed April 30, 2022.
- Rosell-Aguilar, Fernando. 2017. State of the App. *CALICO Journal*, 32: 2, 243-258. Available at <https://www.jstor.org/stable/10.2307/90014690>, accessed March 24, 2022
- Schmitt, Norbert. 2000. *Vocabulary in Language Teaching*. United Kingdom: Cambridge University Press.
- Sydorenko, Tetyana, Ching-Ni Hsieh, Seongmee Ahn and Nike Arnold. 2017. Foreign Language Learners' Beliefs about CALL: The Case of a U.S. Midwestern University. *CALICO Journal*, 34: 2, 196-218. Available at <https://doi.org/10.1558/cj.28226>, accessed May 7, 2022
- Thornbury, Scott. 2002. *How to Teach Vocabulary*. United Kingdom: Pearson Education Limited
- Webb, Stuart and Paul Nation. 2017. *How Vocabulary is Learned*. United Kingdom: Oxford University Press.
- Wilkinson, Darrell, 2017. Vocabulary Acquisition through Word Cards: Student Perceptions and Strategies. *The Electronic Journal for English as a Second Language*, 21: 3. Available at <http://tesl-ej.org/pdf/ej83/a4.pdf>, accessed April 30, 2022.

APPENDIX 1

Pilot test

Exercise: Match the phrases. There are three extra phrases in Estonian.

- | | |
|------------------------------------|---------------------------------------|
| 1. get your own way ____ | a. vapruse sümbol |
| 2. a symbol of courage ____ | b. sündima terve lapsena |
| 3. all around the world ____ | c. mitte suuteline suhtlema |
| 4. throw a tantrum ____ | d. seitsmeaastaselt |
| 5. be born a healthy child ____ | e. halvatuks jääma |
| 6. first of all ____ | f. eelmine abielu |
| 7. at the age of seven ____ | g. märke omavahel ühendama |
| 8. teach obedience ____ | h. tundmatu haigus |
| 9. a previous marriage ____ | i. raevu minema |
| 10. become spoiled and unruly ____ | j. oma tahtmist saada |
| 11. an unknown illness ____ | k. kõigepealt |
| 12. in good health ____ | l. sõnakuulelikkust õpetama |
| 13. go deaf and blind ____ | m. üle maailma |
| 14. unable to communicate ____ | n. sõnakuulmatuks ja rahutuks muutuma |
| | o. hea tervise juures |
| | p. kurdiks ja pimedaks jääma |
| | q. nõrga tervisega |

APPENDIX 2**Pre-test 1 for the phrases to be learned using word cards****Exercise: Translate the following phrases into Estonian.**

- 1) it hurt badly - _____
- 2) over the edge - _____
- 3) on the ground - _____
- 4) not allowed - _____
- 5) be alive - _____
- 6) an operating theatre - _____
- 7) carry on - _____
- 8) lose weight - _____
- 9) an abandoned factory - _____
- 10) burning matches - _____
- 11) call somebody names - _____
- 12) keep a healthy diet - _____
- 13) lose one's temper - _____
- 14) have problems falling asleep - _____

APPENDIX 3

1st and 2nd post-test 1 for the phrases to be learned using word cards

Exercise 1: Translate the following phrases into Estonian.

- 1) an abandoned factory - _____
- 2) over the edge - _____
- 3) on the ground - _____
- 4) lose one's temper - _____
- 5) keep a healthy diet - _____
- 6) carry on - _____
- 7) not allowed - _____
- 8) be alive - _____
- 9) an operating theatre - _____
- 10) lose weight - _____
- 11) it hurt badly - _____
- 12) call somebody names - _____
- 13) burning matches - _____
- 14) have problems falling asleep - _____

Exercise 2: Fill the gaps. Use phrases from exercise 1.

- 1) My mother is trying to _____. She has started working out three times a week.
- 2) You should never play with _____. It is very dangerous.
- 3) A lot of people make fun of Tommy. Sometimes they even _____.
- 4) My little sisters sometimes _____ because they are afraid of the dark.
- 5) To _____, I am trying to eat less sweets and more fruit and vegetables.
- 6) I broke my leg playing football last summer, _____.
- 7) According to the school's dress code, wearing miniskirts is _____ in the schoolhouse.
- 8) Yesterday I found a wallet _____. I took it to the police station.

APPENDIX 4

Questionnaire about using word cards

Dear student,

In the questionnaire below, you can comment on your experience with using word cards. The questionnaire consists of 12 questions.

Please answer the first three questions honestly and in your own words. The questionnaire is anonymous, and the data obtained from it will only be used in my master's thesis.

1. Have you used word cards before to study vocabulary? _____
2. What did you like the most about using word cards?

3. What did you like the least about using word cards?

You can answer the following questions on a 5-point scale. Read the statement and tick (✓) the answer that seems the most true to you.

	Disagree completely	Rather disagree	So and so	Rather agree	Agree completely
4. I enjoyed learning with word cards.					
5. I enjoyed preparing the word cards.					
6. Using word cards to study helped me learn the written form of the new vocabulary.					
7. Using word cards to study helped me learn the meaning of new the vocabulary.					
8. I liked the exercises used in class to learn with the cards.					
9. I would like to use such cards to learn vocabulary at school in the future as well.					
10. I would like to prepare and use such cards at home in the future to study vocabulary.					

11. I would be able to prepare word cards at home on my own to study vocabulary.					
12. Using word cards makes it easier to learn phrases compared to simply using my Student's Book.					

Küsimustik sõnakaartide kasutamise kohta

Hea õpilane

Allolevas küsimustikus saad kommenteerida oma kogemust seoses sõnakaartide kasutamisega. Küsimustik koosneb 12 küsimusest.

Palun vasta esimesele kolmele küsimusele ausalt ja oma sõnadega. Küsimustik on anonüümne ja kasutan saadud andmeid ainult enda magistritöös.

1. Kas oled sõnavara õppimisel varem sõnakaarte kasutanud? _____
2. Mis meeldis sulle sõnakaartide kasutamise juures kõige rohkem?

3. Mis meeldis sulle sõnakaartide kasutamise juures kõige vähem?

Järgnevale küsimustele saad vastata 5-palli skaalal. Loe väide läbi ja tee linnuke (✓) selle vastusevariandi juurde, mis tundub sulle enda kohta kõige õigem.

	Ei nõustu üldse	Pigem ei nõustu	Nii ja naa	Pigem nõustun	Nõustun täielikult
4. Mulle meeldis sõnakaartidega õppida.					
5. Mulle meeldis sõnakaarte valmistada.					
6. Sõnakaartide kasutamine õppimisel aitas mul õpitava sõnavara kirjapildi selgeks saada.					
7. Sõnakaartide kasutamine õppimisel aitas mul õpitava sõnavara tähenduse selgeks saada.					
8. Harjutused, mida tunnis kaartidega õppimiseks kasutati, meeldisid mulle.					
9. Tahaksin ka tulevikus sõnakaarte koolis sõnavara õppimiseks kasutada.					

10. Tahaksin selliseid sõnakaarte tulevikus ka kodus valmistada ja nendega sõnavara õppida.					
11. Suudaksin sõnakaarte kodus õppimiseks ise valmistada.					
12. Sõnakaarte kasutades on lihtsam fraase õppida kui lihtsalt õpikut kasutades.					

APPENDIX 5**Pre-test 2 for the phrases to be learned using Quizlet****Exercise: Translate the following phrases into Estonian.**

- 1) a Member of Parliament - _____
- 2) across the street - _____
- 3) thanks to *sth* - _____
- 4) make a comparison - _____
- 5) on *your* way to school - _____
- 6) be familiar with *sth* - _____
- 7) in addition to that - _____
- 8) in the late 1940s - _____
- 9) from far away - _____
- 10) pay attention to *sth* - _____
- 11) not visible enough - _____
- 12) a pedestrian crossing - _____
- 13) notice a similarity- _____
- 14) different road markings - _____

APPENDIX 6

1st and 2nd post-test 2 for the phrases to be learned using Quizlet

Exercise 1: Translate the following phrases into Estonian.

- 1) notice a similarity- _____
- 2) be familiar with *sth* - _____
- 3) a Member of Parliament - _____
- 4) not visible enough - _____
- 5) different road markings - _____
- 6) across the street - _____
- 7) thanks to *sth* - _____
- 8) make a comparison - _____
- 9) on *your* way to school - _____
- 10) a pedestrian crossing - _____
- 11) in addition to that - _____
- 12) from far away - _____
- 13) in the late 1940s - _____
- 14) pay attention to *sth* - _____

Exercise 2: Fill the gaps. Use the phrases from exercise 1.

- 1) My grandmother is 76 years old. She was born _____.
- 2) _____ are used in different countries. Therefore, you must be careful when driving in a foreign country.
- 3) Pedestrians must always wear a reflector, otherwise they are _____ in the dark and an accident may happen
- 4) I was looking at an old photo of my grandmother and saw that it is very easy to _____ between her and my mother.
- 5) My sister was wearing a bright orange jacket, so I noticed her _____.
- 6) We ran out of sugar, so I had to run _____ to our neighbour's house to borrow some.
- 7) Do you have any zebra crossings _____?
- 8) Everybody knows that _____ looks similar to a zebra because of its colours.

APPENDIX 7

Questionnaire about using Quizlet

Dear student,

In the questionnaire below, you can comment on your experience with using Quizlet. The questionnaire consists of 11 questions.

Please answer the first three questions honestly and in your own words. The questionnaire is anonymous, and the data obtained from it will only be used in my master's thesis.

1. Have you used Quizlet before to study vocabulary? _____
2. What did you like the most about using Quizlet?

3. What did you like the least about using Quizlet?

You can answer the following questions on a 5-point scale. Read the statement and tick (✓) the answer that seems the most true to you.

	Disagree completely	Rather disagree	So and so	Rather agree	Agree completely
4. I enjoyed learning with Quizlet.					
5. I would be ready to prepare similar cards for myself in Quizlet.					
6. Using Quizlet to study helped me learn the written form of the new vocabulary.					
7. Using Quizlet to study helped me learn the meaning of new the vocabulary.					
8. I liked the exercises used in Quizlet to study vocabulary.					
9. I would like to use Quizlet to learn vocabulary at school in the future as well.					
10. I would like to use Quizlet to learn vocabulary at home in the future as well.					
11. I would be able to access Quizlet via the Internet at home at any time.					

12. Using Quizlet makes it easier to learn phrases compared to simply using my Student's Book.					
13. I preferred using word cards over Quizlet.					

Küsimustik Quizleti kasutamise kohta

Hea õpilane

Allolevas küsimustikus saad kommenteerida oma kogemust seoses Quizleti kasutamisega. Küsimustik koosneb 11 küsimusest.

Palun vasta esimesele kolmele küsimusele ausalt ja oma sõnadega. Küsimustik on anonüümne ja kasutan saadud andmeid ainult enda magistritöös.

1. Kas oled sõnavara õppimisel varem Quizletit kasutanud? _____
2. Mis meeldis sulle Quizleti kasutamise juures kõige rohkem?

3. Mis meeldis sulle Quizleti kasutamise juures kõige vähem?

Järgnevatele küsimustele saad vastata 5-palli skaalal. Loe väide läbi ja tee linnuke (✓) selle vastusevariandi juurde, mis tundub sulle enda kohta kõige õigem.

	Ei nõustu üldse	Pigem ei nõustu	Nii ja naa	Pigem nõustun	Nõustun täielikult
4. Mulle meeldis Quizleti abil õppida.					
5. Ma oleksin valmis sarnaseid kaarte Quizletis ka ise valmistama					
6. Quizletis õppides sai mulle uue sõnavara kirjalpilt selgeks.					
7. Quizletis õppides sai mulle uue sõnavara tähendus selgeks.					
8. Harjutused, mida Quizletis õppimiseks kasutati, meeldisid mulle.					
9. Tahaksin ka tulevikus Quizletit koolis sõnavara õppimiseks kasutada.					
10. Tahaksin ka tulevikus Quizletit kodus sõnavara õppimiseks kasutada.					
11. Mul oleks igal ajal kodus võimalik internetis Quizletile juurde pääseda.					
12. Quizleti kasutamine muudab sõnade õppimise lihtsamaks võrreldes lihtsalt õpikust õppimisele					
13. Mulle meeldis rohkem kasutada sõnakaarte kui Quizletit					

APPENDIX 8

LAPSEVANEMA NÕUSOLEK

Lugupeetud lapsevanem,

Olen Risti Põhikooli inglise keele õpetaja Lisanna Lipu. Soovin oma magistritöö raames õpilaste seas uuringut läbi viia. Minu lõputöö eesmärgiks on kasutada 6. klassi tunnis sõnavara õppimiseks erinevaid meetodeid ja saada aru, milline neist mõjub õpilaste tulemustele kõige paremini ning millist meetodit õpilased ise meelsamini kasutavad. Õppetöös kasutatakse 6. klassi tavapärasest õpikut *I Love English 4*. Uuringu tulemusena saan teada, millise õppemeetodi kasutamine on 6. klassi jaoks sõnavara õppimisel kõige efektiivsem.

Õpilaste nimesid, tulemusi ega vastuseid ei avaldata. Tegu on konfidentsiaalse infoga. Vastused muudetakse anonüümseks ning andmeid uurin ainult oma magistritöö raames.

Kuna tegemist on alaealistega, soovin küsida, kas olete nõus oma lapse osalemisega uuringus? Palun lisada lehele oma lapse osalemisega nõustumiseks kas JAH või EI ning oma allkiri.

Lugupidamisega

Lisanna Lipu

..... (JAH/EI)

..... (ALLKIRI)

RESÜMEE

TARTU ÜLIKOOL
ANGLISTIKA OSAKOND

Lisanna Lipu

The Comparative Effects of Using Word Cards and the Online Learning Tool Quizlet on Developing Learners' EFL Vocabulary

Sõnakaartide ja veebipõhise õppevahendi Quizlet kasutamise võrdlev mõju õppijate sõnavara arengule inglise keele võõrkeelena õppimisel

magistritöö

2022

Lehekülgede arv: 80

Magistritöös uuritakse sõnakaartide ja veebipõhise õppevahendi Quizlet kasutamise võrdlevat mõju õppijate sõnavara arengule inglise keele võõrkeelena õppimisel. Sõnavara õppimine on väga tähtis osa võõrkeeleõppes ja seega püüavad nii õpetajad kui õpilased alati leida parimaid võimalikke sõnavara õppimise viise. Kuna viimastel aastakümnetel on tehnika arengus tehtud suuri edasiminekuid, on ka sõnavaraõppes kasutusele tulnud erinevaid internetipõhiseid õppevahendeid, mis on suuresti vanade õpetamisviiside edasiarendused, mitte uued õpetamisviisid. Käesolev magistritöö võrdleb omavahel pabersõnakaartide ja internetipõhise õppevahendi *Quizlet* mõju inglise keelsete fraaside õppimisele.

Magistritöö koosneb sissejuhatuses, kahest peatükist, kokkuvõttest, kirjanduse loetelust ja kaheksast lisast. Sissejuhatuses antakse ülevaade selle kohta, miks valiti uurimisteenaks just sõnakaardid ja *Quizlet*. Sõnakaarte peetakse üheks enamlevikumaks sõnavaraõppevahendiks ning *Quizlet* on vahend, mis kätkeb endas alusmaterjalina *online*-sõnakaarte, mille õppimiseks pakub veebikeskkond erinevaid harjutusi.

Esimeses peatükis antakse lugejale ülevaade sõnavara õppimisest võõrkeeles ja tutvustatakse erinevaid sõnavara õppimise viise. Alapeatükkides keskendutakse sõnavara arendamise tähtsusele ning kuna magistritöö raames uuriti fraaside õppimist, keskendutakse eraldi ka sellele, miks on soovitatav õppida fraase, mitte üksikuid sõnu. Lisaks seletatakse lahti retseptiivse ja ekspressiivse sõnavaraoskuse mõisted. Järgnevalt tehakse ülevaade veebi- ja paberipõhistest sõnavara õppimise viisidest ning tehnoloogia kasutamisest keeleõppe tõhustamisel. Järgnevad kaks alapeatükki keskenduvad eraldi sõnakaartide ja *Quizlet* kasutamisele sõnavaraõppes ning viimane alapeatükk loob seoseid motivatsiooni ja sõnavara õppimise vahel.

Teine peatükk keskendub Lääne-Eesti väikeses maakoolis 6. klassi õpilaste seas läbi viidud uurimusele, mille eesmärgiks oli võrrelda omavahel pabersõnakaartide ja internetipõhise õppevahendi *Quizlet* mõju inglise keelsete fraaside õppimisele ning saada teada, millised on õpilaste endi arvamus nende kahe sõnavara õppimise viisi suhtes. Õpilased õppisid kahte erinevat tehnikat kasutades järjest selgeks kaks komplekti inglise keelseid fraase. Enne mõlema tehnika abil õppima asumist tegid õpilased sõnavara eeltesti ja peale õppimist kaks järeltesti - ühe kohe peale õppimist ja teise kolm nädalat hiljem. Testi tulemustest selgus, et mõlemad sõnavaraõppetehnikad aitasid õpilaste teadmiste kasvule suuresti kaasa. Veidi kõrgemaid tulemusi tõi pabersõnakaartide kasutamine. Lisaks uuriti õpilaste arvamusi mõlema õppetehnika suhtes, millest ilmses, et eelistatuim kahest on

sõnakaartide kasutamine. Õpilased tõid välja, et *Quizletit* on küll lihtsam kasutada, kuna paberkaardid kaovad lihtsasti ära ja *Quizlet* on neile mobiiltelefoni abil alati kättesaadav. Samas mainiti, et pabersõnakaartide kasutamine teeb õppimise lihtsamaks samas kui *Quizleti* poolt pakutav automaatne tagasiside on üpris jäik ega jäta ruumi pisimagi eksimuse jaoks, mis võib õpilaste jaoks olla frustratsiooni allikaks.

Uuringu tulemusel selgus, et nii sõnakaartide kui ka *Quizleti* kasutamine fraaside õppimiseks andis häid tulemusi õpilaste sõnavaraalaste teadmiste täiendamisel. Statistilist erinevust kahe õppeviisi kasutamise vahel ei olnud, kuid veidi kõrgemad testitulemused saavutasid õpilased neis testides, kus kontrolliti sõnakaartide abil õpitud fraaside tundmist.

Töö lõpeb kokkuvõttega, milles on lahti seletatud magistritöö kõige olulisemad leiud ja järeldused, mille järel on loetelu kogu kasutatud kirjandusest. Tööl on kaheksa lisa, mille seast leiab ka sõnavaratestid, mida uuringu läbi viimiseks kasutati.

Märksõnad:

Inglise keel, inglise keele õpetamine, sõnavara, õppimistehnikad, keeleõpperakendused, arvutipõhine keeleõpe, keeleõpe tehnoloogia vahendusel

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17.05.2022

Lõputöö on lubatud kaitsmisele.

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