

**“I TRUST THE PRINTED ONES MORE”:
Finnish Upper Secondary School Students’
Use of Print and Electronic Dictionaries**

**Bachelor’s thesis
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Tiivistelmä – Abstract <p>Digitalisoituvassa maailmassa myös sanakirjat siirtyvät painetusta formaatista sähköiseen. Sähköisten sanakirjojen suureen suosioon vaikuttaa varsinkin niiden käyttömukavuus ja nopeus sekä niiden painettua sanakirjaa parempi saavutettavuus myös kodin ja koulun ulkopuolella esimerkiksi älypuhelimien sanakirjasovellusten avulla. Sähköisten sanakirjojen kirjo on kuitenkin suuri, eivätkä kaikki oppijoiden käyttämät sanakirjat ole käyneet läpi minkäänlaista asiantuntija-arviointia.</p> <p>Tämän tutkielman tarkoituksena on selvittää suomalaisten lukiolaisten painettujen ja sähköisten englannin sanakirjojen käyttöä. Tutkielman aineisto kerättiin kyselylomakkeella, jossa kysyttiin, kuinka usein ja millaisissa tilanteissa lukiolaiset käyttävät sanakirjoja. Lisäksi lukiolaisia pyydettiin kertomaan oma mielipiteensä sähköisistä sanakirjoista. Aineisto analysoitiin sekä määrällisin että laadullisin menetelmin.</p> <p>Tuloksista selvisi, että vastaajien joukossa sähköiset sanakirjat olivat lähestulkoon syrjäyttäneet painetut sanakirjat. Sähköisen formaatin mahdollistama saavutettavuus taas näkyi sanakirjojen käyttönä myös kodin ja koulun ulkopuolella. Lukiolaiset arvostivat sähköisten sanakirjojen käytön helppoutta ja nopeutta, mutta niiden luotettavuus huoletti monia.</p> <p>Huolimatta siitä, että tulokset eivät ole yleistettävissä, on niistä nähtävissä, kuinka sähköiset sanakirjat ovat syrjäyttämässä painetut. Varsinkin opettajien vastuun sanakirjojen käytön opettamisesta voidaan kuitenkin katsoa kasvaneen, kun oppijoiden saatavilla on laadultaan hyvin vaihtelevia sanakirjoja.</p>	
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1 INTRODUCTION

Dictionaries have always provided English learners a valuable source of information, and they have functioned as a tool for helping learners to express their ideas and to broaden their vocabulary in a foreign language. The traditional print dictionary has been developed greatly over the past decades, and it has become ever more sufficient in giving learners the information they need. However, technological development, for instance the rise of the Internet, has created new platforms for learners to utilise, for example various online dictionaries. Although some of these may lack in accuracy and overall quality of the content when compared to print dictionaries, in general they have many advantages regarding features such as accessibility, portability, quickness and convenience of use.

The shift from paper to electronic has been a rapid one, and even studies conducted in the early twenty-first century have become severely outdated. In the study by Kent (2001), 76% of Korean university students used only print dictionaries, and presumably online dictionaries were not even seen as a future alternative back then, although Kent uses the terms *electronic* and *PC-based dictionaries*. Nowadays, the possibilities of different electronic dictionaries have been acknowledged, and many experts believe that they will eventually replace print dictionaries (Granger 2013: 3).

In the past, there has been a great amount of research conducted on dictionary use in general, but research on the use of electronic dictionaries is still reasonably limited (Töpel 2014: 48). A study by Li and Deifell (2013) suggests that foreign language learners use electronic dictionaries mainly for reading and writing texts on the Internet, and that they are aware of the possible problems associated with the content in these dictionaries. Similar results were reported by Müller-Spitzer (2014: 122), but as she conducted her study with adults who needed dictionaries in their working lives on a regular basis, it is rather obvious that the participants were aware of different types of dictionaries.

The shift from print to electronic is a current issue also here in Finland. The Finnish school system is undergoing a process of digitalisation, and many schools are using ever more electronic learning material. Thus, it would be meaningful to investigate the situation in

today's English language class, as language learners usually need to consult dictionaries in their various school tasks. On the other hand, in the globalised world, the probability of school students encountering foreign languages in their free time is reasonably high, and the need for dictionary consultation may arise when encountering unknown words in a foreign language.

Learners might not be as aware of some of the challenges regarding the use of electronic dictionaries as more experienced adults, such as in Müller-Spitzer (2014). By investigating how learners utilise this new type of dictionary could reveal issues that, for instance, teachers should be addressing when teaching dictionary use at schools. The present study is an attempt in raising our knowledge on this issue, and for achieving this goal the study examines Finnish upper secondary school students' use of English dictionaries.

2 DICTIONARY USE IN LANGUAGE LEARNING

In this chapter, there will be a discussion of the developments in research on dictionary use. Different dictionaries might vary a great deal in multiple ways, such as quality and accuracy of entries, but there are also different types of dictionaries, and some type might prove more useful for some users than for others. Furthermore, the recent leaps in the field of technology have given rise to the electronic dictionary, which means an even broader variety of dictionary types. For this reason, one purpose of this chapter is to provide a clear definition of what is included under the term 'electronic dictionary'.

2.1 The Learner's Perspective

Dictionaries have been studied throughout the years for their potential in vocabulary acquisition. Recently, however, the focus of such studies has shifted from examining what dictionaries contain to what users do with the content in dictionaries. This shift can be explained by the change in what is considered to be the purpose of dictionaries. Lew and de Schryver (2014: 341) argue that the status of dictionaries has changed from an authority to a tool. Earlier, dictionaries were considered to have the final word in how a language is used, but more recently it has been the user who evaluates the content and its usefulness for his or

her own language use. Thus, what now interests researchers the most is not necessarily the dictionary itself but its users, and how they use dictionaries of different types for vocabulary acquisition.

Some studies have examined how efficiently English learners acquire new words by using dictionaries. Gonzalez (1999: 269) describes dictionary entries as an "initial step in learning a new word". However, learners need guidance if they are to benefit the most from dictionary consultation. If learners are left all by themselves, finding the correct definition of a word might be problematic, as learners might not be aware of the morphological features regulating the arrangement of dictionary entries, such as the word stem functioning as the headword (Gonzalez 1999: 269). This underlines teachers' responsibility in advising their students on effective dictionary consultation.

Also Knight (1994: 295) reports on the effectiveness of consulting dictionaries in vocabulary acquisition. In her study, which investigated dictionary use in reading comprehension, it was found out that those participants who consulted a dictionary while reading acquired more English words than those who merely tried to guess word meanings from the context. Guessing the meaning from the context might also benefit learners, but mainly those with higher proficiency, and thus teachers should be aware of not over-emphasising contextual guessing, but also encourage the use of dictionaries. In a more recent study, Ranjbar (2012: 1310) remarks that guessing word meanings is useful only in situations where the context provides enough clues for the learners, and teachers should also guide their students to check their guesses in a dictionary, if possible. These studies were conducted in the USA and Iran, but encouraging contextual guessing of word meanings might be commonly practised by Finnish teachers, as well.

Gonzalez (1999: 269) argues that learners with lower English proficiency profit the most from dictionaries that are designed especially for foreign language learners. Such dictionaries might compensate the possible limitations in understanding morphological features, for instance. However, as Hartmann (1999: 9) points out, different types of tasks mean different features that are expected from a dictionary. With a reading comprehension task, for example, one might look for different information than with a translation task, and then the direction – what

is the target language in the translation – plays a significant role in what type of dictionary one needs. For this reason, we should now proceed to the different dictionary types and how they serve different users.

2.2 Different Types of Dictionaries

There is a very broad variety of different dictionary types, and dictionaries have been developed to serve multiple different tasks, but for the purposes of the present small-scale study we will concentrate on the main division between dictionary types: monolingual and bilingual. As their names suggest, entries in the monolingual dictionary are provided in one language only, whereas the bilingual dictionary uses two languages and provides translations for words from one language to another. Unsurprisingly, these two types of dictionaries are used in different ways, and their usefulness might vary between different users.

According to Laufer and Hadar (1997: 195), more proficient learners of English benefit most from monolingual dictionaries, whereas beginners find most help from bilingual dictionaries. However, they argue that the most efficient dictionary type is the so called bilingualised dictionary (also called semi-bilingual in Lew 2004), which combines word translations with short explanations of word meaning and use – a feature of the monolingual dictionary. The effectiveness was analysed with two types of tasks, namely text comprehension and text production, and this revealed that learners with average proficiency benefit more from monolingual than bilingual dictionaries in comprehension, but in text production, the bilingual dictionary provides more help.

Similar findings were made by Atkins and Varantola (1997: 33). They argue that bilingual dictionaries are used in translation tasks, and monolingual dictionaries are consulted if there is need for further grammatical or collocational information about the word. They also found that students with higher L2 proficiency use monolingual dictionaries more often than those with lower proficiency. This seems logical, as learners inevitably would find either monolingual or bilingual dictionaries more useful, depending on their own language skills, as lower proficiency learners would probably not understand all necessary information in a monolingual entry.

Lew (2004: 84) confirms these findings, as he states that even the highest proficiency learners do not begin using only monolingual dictionaries, but use them alongside bilingual ones. He also argues that bilingual dictionaries are more useful than monolingual dictionaries, despite a very high proficiency in the L2 (Lew 2004: 179). However, when it comes to bilingualised dictionaries, the usefulness of which was promoted by Laufer and Hadar (1997:195), Lew (2004: 189) was not able to find proof for the argument that bilingualised dictionaries are more helpful than bilingual ones, although their effectiveness was higher when compared to monolingual dictionaries.

As mentioned earlier, recent research of dictionaries has turned its focus on the user. Obviously, it is important to acknowledge which dictionaries users prefer the most. Frequency of dictionary consultation tells something about user preferences, but participants have also been asked to rate the user experience of different dictionaries. In their study, Atkins and Varantola (1997: 24) asked their participants whether they were satisfied with the information that they found during dictionary consultation for a translation task, and found out that overall 59% of the participants were satisfied with what they found. In a study by Laufer and Levitzky-Aviad (2006), dictionary users reported on how useful they find different dictionaries, and an experimental bilingual Hebrew–English dictionary with additional semantic and grammatical information in each entry – features which in Atkins and Varantola (1997) had led to consultation of a monolingual dictionary – was rated the most useful.

Interestingly, however, the electronic version of the most satisfying dictionary was preferred above the printed one (Laufer and Levitzky-Aviad 2006: 150). This brings us to the recent digitalisation of the dictionary mentioned earlier. Li and Deifell (2013) studied EFL learners' use of online dictionaries, and also they concluded that dictionaries in electronic form are widely perceived with a positive attitude, as 75% of the participants had positive feelings toward online dictionaries (Li and Deifell 2013: 523). As there are so many different online dictionaries, their quality might vary a great deal, and this led to some negative feedback from the respondents, but all in all, online dictionaries were appreciated for that they are "free, fast, convenient, easy to use, and up-to-date" (Li and Deifell 2013: 524).

As we can see, these appreciated features of electronic dictionaries are all connected to the user experience, and the traditional paper dictionary does not compare very well in any of them, although some may still find paper dictionaries easy to use, as in an earlier study by Kent (2001: 83). In his study, respondents most disliked features concerning portability, such as bulkiness of the print dictionary, and some complained about out-dated entries. Also the high prices of dictionaries were commented on in this earlier study (Kent 2001: 84), and these features quite conveniently find their counterparts from the appreciated categories in Li and Deifell's (2013) study.

Because electronic dictionaries are so convenient and easy to use, and as they provide many other possibilities, as well, many experts believe that electronic dictionaries will eventually replace the print dictionary (Granger 2013: 3). Electronic dictionaries provide users with new tools, such as audio files for checking pronunciation or more examples of different kinds of language use, such as different varieties or styles (Li and Deifell 2013: 523). Additional examples are mainly due to the less limited space, and although Lew (2004: 180) argues that electronic or online dictionaries do not eliminate the space restrictions of dictionaries, there is still considerably more available space online than on the pages of a print dictionary.

2.3 Defining 'Electronic Dictionary'

There have been some differing views on the terminology concerning dictionaries in their electronic form. As Lew (2014: 342) points out, it is important for any research done on such dictionaries to properly define electronic or online dictionaries. He suggests an umbrella term 'digital dictionaries', which would separate online dictionaries or dictionary applications or CDs from the electronic dictionary devices (EDs), as in Kent (2001) or Loucky (2010). However, in their questionnaire, Li and Deifell (2013) use the term 'electronic dictionary' for referring to online, CD dictionaries or dictionary mobile applications. Because the Finnish terms *sähköinen sanakirja* (in English *electronic dictionary*) and *sähkökirja* (*e-book*) have widely established themselves in the spoken and written language, for the present study, the term 'electronic dictionary' is used for avoiding possible confusion in Finnish.

One important issue still needs clarification, namely what types of dictionaries are included under 'electronic dictionaries'. Li and Deifell (2013: 516), examining online dictionaries,

included all dictionaries available in the Internet or as an application for mobile phones and tablets. However, they excluded online translation services, such as Google Translate, and the basic search engine Google Search, both of which turned out to be rather widely utilised by respondents (Li and Deifell 2013: 526). Had they been counted as dictionaries, the two would have actually been the two most popular ones. Google Translate is also used alongside online dictionaries for understanding whole sentences (Li and Deifell 2013: 522). Lew (2014: 249), on the other hand, points out that online search engines often lead to some online dictionary. Here, one might question how aware users are of the dictionaries they use. For the purposes of the present study, the ‘electronic dictionary’ will cover all dictionaries in an electronic form, be it online, CD, mobile application, or an ED. However, I will follow Li and Deifell’s (2013) definition and exclude Google Search and Google Translate from the list of electronic dictionaries.

3 THE PRESENT STUDY

3.1 The Aim and the Research Questions

The aim of this small-scale study was to investigate Finnish upper secondary school English learners’ use of different types of dictionaries, focussing on the two main dictionary types, the print and the electronic dictionary. This study attempted to reveal the purpose of dictionary use, but it also investigated the context of dictionary consultations and whether dictionaries were used outside the school environment or in informal situations. Although the use of electronic dictionaries was emphasised, there was some comparison between print and electronic dictionaries.

For achieving these goals, the following three questions were raised:

1. Which type of dictionary (printed or electronic) do learners use the most?
2. In what situations and for what kind of tasks do learners consult a dictionary?
3. What is the learners’ own opinion about the dictionaries they use?

My assumptions regarding these questions were that Finnish upper secondary school students would mostly use electronic dictionaries of English, but also print dictionaries in some cases, for example if they could not find the information needed from an electronic source. The expectation was that the transition from print to electronic would be seen from the students' use of dictionaries, as this transition, according to Granger (2013: 3) had already been discussed by many researchers. As electronic dictionaries are more portable than printed ones, one assumption was that learners would use dictionaries also for other than school tasks, and on their free time, when they were not at home. My assumption regarding the third research question was that some learners would express some criticism towards the quality of some electronic dictionaries, as it can vary a great deal, as argued by Li and Deifell (2013).

3.2 Data and Methods

The data was collected by using a questionnaire designed specifically for the purposes of the present study (see Appendix for the questionnaire and the English translation). The questionnaire consisted of 17 closed questions including three questions for background information about the respondents' age, gender and previous English course grade. In addition, there were three open-ended questions, all of which being reasonably short writing tasks: two questions for revealing respondents' strategies of finding out word meanings and one question where the respondents could write down their opinions on electronic dictionaries. Thus, all three of the question types as provided by Dörnyei (2007: 102) were included, and this study combined both quantitative and qualitative methods.

The 44 respondents (29 female and 15 male) were all students in an upper secondary school located in Central Finland, whose age varied from 17 to 18 years, with an exception of one apparently 20-year-old respondent. This age group of participants was chosen, because conducting a questionnaire on younger learners would probably not have resulted in as self-reflecting answers as hoped for the purposes of the study. On the other hand, these students were still at school, as the intention of this study was to examine dictionary use in and out of school environment. The sample size was suitable for the scale of the present study, but the results are not generalisable. The data was collected on two subsequent days in May 2016 from two different English groups of two teachers, who were contacted prior the data collection. At the time of the data collection, all participants had valid permits for taking part

in the study. A pilot study was conducted on one 17-year-old woman, and on the basis of the results, some final changes were made to the questionnaire. The language of the questionnaire was the respondents' mother tongue Finnish.

3.3 Methods of Analysis

The analysis of the data was conducted roughly following the guidelines by Dörnyei (2009). First, the questionnaires were numbered for identification, and then the data was investigated and some data cleaning was executed (Dörnyei 2009: 88). For example, one respondent had clearly misunderstood the Likert scale in one closed question, but as this error could clearly be seen from his or her answers to the other question, especially the open-ended ones, the error was corrected by the author. As already mentioned, one respondent had written that he was 20 years old, which might be true, but nevertheless his or her answers were not included in the final data.

The open-ended questions were examined using loosely the content analysis guidelines in Dörnyei (2009: 99). This meant highlighting features that somehow stood out in each respondents' answers and then comparing these features to the others. After that, it was possible to divide the answers into groups that shared some common features. Dörnyei (2009: 99) suggests number coding the answers and entering the data into a computerised data file, but such arrangement was evaluated as not purposeful considering the scale of this study and the data was collected into a simple Excel file, which was then used for calculating percentages. As the respondents' answers to the open-ended questions were written in Finnish, they were translated into English.

4 THE USE OF PRINT AND ELECTRONIC DICTIONARIES

The purpose of this study was to examine how Finnish upper secondary school students use print and electronic dictionaries, and how often and in what situations they consult dictionaries in general. Another important factor was the students' own opinion about these two dictionary types, for example their ease of use and their usefulness in finding the word they are looking for. This more user-oriented approach follows the footsteps of more recent

studies, which see dictionaries as an tool rather than an authority, as suggested by Lew and de Schryver (2014: 341).

This chapter is divided into three sections. First, the frequency of dictionary use and the preferred dictionary types are examined. Then, the context of dictionary use will be examined, and whether students need dictionaries also outside the school environment and for which tasks. Finally, there will be a discussion about the students' own opinions about different dictionary types and their strengths and possible weaknesses in finding the words that students need and information they expect to find when consulting a dictionary.

4.1 Frequency of Dictionary Use and Preferred Dictionary Types

One of the most central questions in this study was the frequency of dictionary consultations. This is an important question when comparing the use of print and electronic dictionaries. Although many researchers have predicted the inevitability of electronic dictionaries replacing print dictionaries (Granger 2012: 2), the results of the present study, which are listed below in Table 1, were quite astounding. The shift from print to electronic has, at least among these respondents, already happened. This can be seen from the results (Table 1), as only very few respondents (4.76%) used electronic English dictionaries every day, and no one used a printed dictionary on a daily basis. The percentage of those who reported never using print dictionaries was surprisingly high at 57.14%, and if those who only used print dictionaries a couple of times a year (35.71%) are added, one can see that 92.85% of the respondents hardly ever use a print dictionary anymore.

Table 1. Frequency of print and electronic dictionary use among upper secondary school students

	Print dictionaries	Electronic dictionaries
Every day	0 (0.00%)	2 (4.76%)
Once or twice a week	2 (4.76%)	28 (66.67%)
A couple of times a month	1 (2.38%)	12 (28.57%)
A few times a year	15 (35.71%)	0 (0.00%)
Never	24 (57.14%)	0 (0.00%)
Total	42 (100%)	42 (100%)

Two respondents reported using print dictionaries a couple of times per week, and compared to the number of regular users of electronic dictionaries, they create a very small minority. From those who reported using dictionaries a couple of times a month, 12 were users of electronic dictionaries and only one consulted a print dictionary. All this could well be seen as evidence for the future described by Granger (2012).

There might be many reasons for the results described above, but as Kent (2001) and Li and Deifell (2013) argue, one of the most important factors when choosing which dictionary to use is the easiness and convenience of use. The ease of use can be result of multiple issues, and some of them will be discussed later. However, the ease of use could partly be influenced by the context of use, and next the contexts in which respondents use dictionaries will be examined.

4.2 Context of Dictionary Use

Unsurprisingly, the majority of respondents (85.71%) answered that they had access to a printed English dictionary at home. Only two respondents told that they or their family did not own a printed English dictionary. However, 9.52% did not know whether they had a print dictionary at home or not, which in turn demonstrates that even if their family owns a print dictionary, it is not used regularly or at all by anyone. If these findings are compared to the low frequency of print dictionary use discussed above, one could argue that print dictionary has turned into a relic which most of the time stays unused in many homes.

When asked on which device the upper secondary school students most often use an electronic English dictionary, two mobile devices – tablet and smartphone – are the most common answers. These results can be found in Figure 1. Portability was also a major factor for user-satisfaction in studies by Kent (2001) and Li and Deifell (2013), which could explain why electronic dictionaries on the two mobile devices are more popular than the two less portable devices, the laptop and the desktop computer. However, one has to remember that it is not only dictionaries that these students use on their devices, and that the decision to use some device depends on many different factors, such as the task at hand or even on which devices the students own. At the upper secondary school where this study was conducted, all students have access to tablets, and this could also explain the high proportion of tablet use.

● Desktop (n=2) ● Laptop (n=0) ● Tablet (n=19) ● Smartphone (n=15)

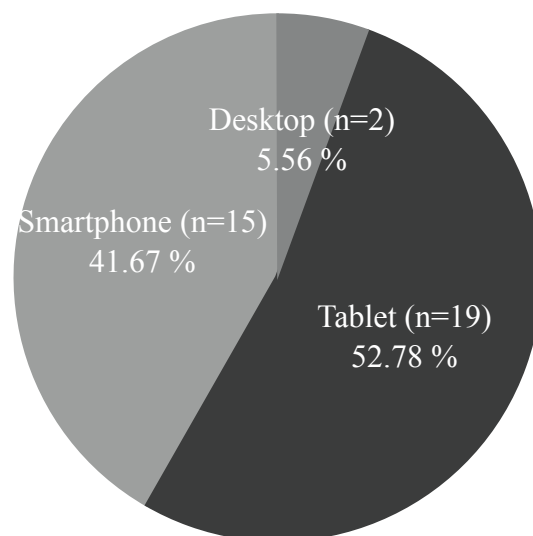


Figure 1. Devices on which Finnish upper secondary school students use electronic English dictionaries

Possibly for similar reasons, none of the respondents reported using dictionaries on a laptop. Although this result might seem surprising, it could easily be explained by the tasks for which students need to consult a dictionary. For this reason, it will later be examined whether the respondents use dictionaries for tasks other than their school work. But in order to do so, one has to first investigate the questionnaires' two open-ended questions in which the respondents are given a task or a situation (encountering an unknown English word, not knowing the English translation for a Finnish word). These questions reveal the respondents' strategies for solving word meanings or translations.

In these two open-ended questions the emphasis was not on different dictionary types, but on the students' strategies. Out of the 42 questionnaire answers, 26 (61.90%) mentioned *dictionary* in the procedure of solving the Finnish meaning of an English word. These included mentions of some online dictionaries, such as *sanakirja.org*, a Finnish website providing translations in various languages. Also *Google Search* and *Google Translate* were mentioned in 13 answers (30.95%). When the respondents were asked about their strategies when they had to translate a Finnish word into English, *dictionary* was mentioned 21 times and *Google Search* or *Google Translate* 12 times.

At this point the respondents were not aware of the exclusion of *Google Search* and *Google Translate* from 'electronic dictionaries', which was only introduced later. However, this shows the same phenomenon as observed by Li and Deifell (2013), who found that had the two not been excluded from the definition of the 'electronic dictionary', they would have been the two most popular dictionaries in their study. In the present study, this was not quite the case, although one cannot be certain whether some of the answers mentioning dictionaries also meant *Google Search* or *Google Translate*.

Another rather interesting finding was that many respondents mentioned guessing from the context (21 times, in English–Finnish translation) and using a synonym or paraphrasing (24 times, in Finnish–English translation). In English–Finnish translation 10 respondents reported guessing word meanings from the word morphology, such as affixes. Strategies such as these might show that the respondents have received guidance or training for such situations, for instance at school. In fact, when asked about this, 64.29% had received teacher guidance in print dictionary use, and 33.33% in electronic dictionary use. The lower percentage in the latter case could be explained by the relatively young age of the technology. All in all, it seems that these students were well aware of different strategies in translation tasks, and guessing from the context proved to be particularly popular. Although Knight (1994) criticised the overuse of contextual guessing, the learners in the present study did not seem to rely too much on guessing words.

If the contexts in which the respondents encounter these problems are examined, one can see that 73.81% of them have been in a situation in some place other than school or at home where they did not know the Finnish equivalent for an English word or vice versa. In such situations one would most likely use a tablet or a smartphone for finding translations of unknown words, and this could explain the minimal use of desktop or laptop computers mentioned earlier. In Kent's (2001) study, portability was one major factor for user-satisfaction. In comparison, laptops lack some of the portability that mobile devices have, as one would most likely not carry a laptop when going out with friends, for example.

Interestingly – although rather expectedly – the large majority of the respondents (90.48%) reported having encountered lexicographical problems while doing something in their free

time, while they were not doing school work. This was to be expected in today's globalised world, where English is present all around us, also in Finland. It also shows that dictionaries or other sources for word translation are still important, and that Gonzales' (1999: 269) description of dictionary consultation as the "initial step in learning a new word" still applies, even though the traditional print dictionary would gradually be becoming extinct. New technology allows dictionary use in situations where often quite bulky print dictionaries probably would not be used. This brings us to the final part of this chapter, namely the respondents' view on different dictionary types.

4.3 Finnish Upper Secondary School Students' Views on Dictionary Types

Quite many studies (e.g. Atkins and Varantola 1997, Kent 2001, Laufer and Levitzky-Aviad 2006) have approached factors affecting the user-experience of dictionaries by asking respondents to evaluate how easy a given dictionary is to use, and how useful a dictionary is. The former question has already been discussed to some extent, as it includes factors such as portability, but also how fast the user is able to find the word he or she is looking for. The latter factor, however, is related to the quality of the dictionary and its entries. These two issues, the ease of use and usefulness will now be discussed by investigating the answers given by the respondents of the present study.

The respondents were asked how easy print and electronic dictionaries are to use. The results, which can be found in Figure 2, reveal that the large majority (76.19%) find electronic dictionaries very easy and effortless to use. Only four respondents thought that print dictionaries are effortless to use, and the majority of answers fall between the categories 2–4. Such results were to be expected, considering the popularity of electronic dictionaries. Interestingly, however, one respondent considered electronic dictionaries very laborious. Overall, he or she seemed to take a very clear stance in order to defend the traditional print dictionary, as could be seen in the answer he or she gave to the last open-ended question, where the respondents could tell their general opinion about electronic dictionaries. This open-ended question will be discussed later.

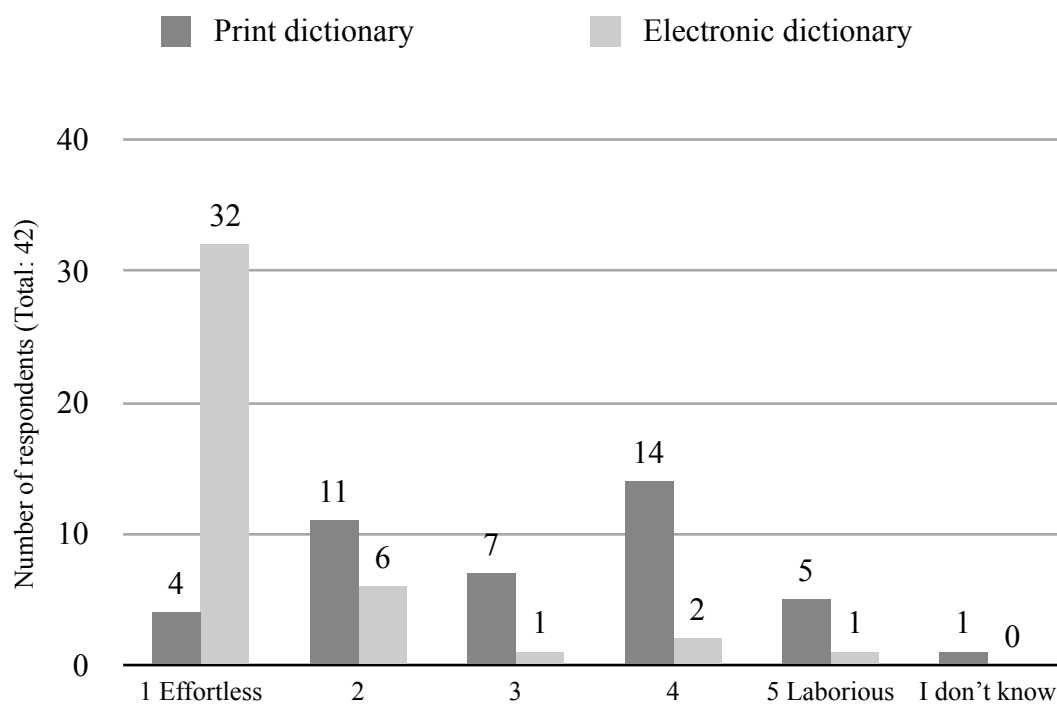


Figure 2. The ease of use of print and electronic dictionaries by Finnish upper secondary school students

The question about how often the respondents find the information they are looking for in print and electronic dictionaries at most parts did not reveal major differences between the two dictionary types (Figure 3).

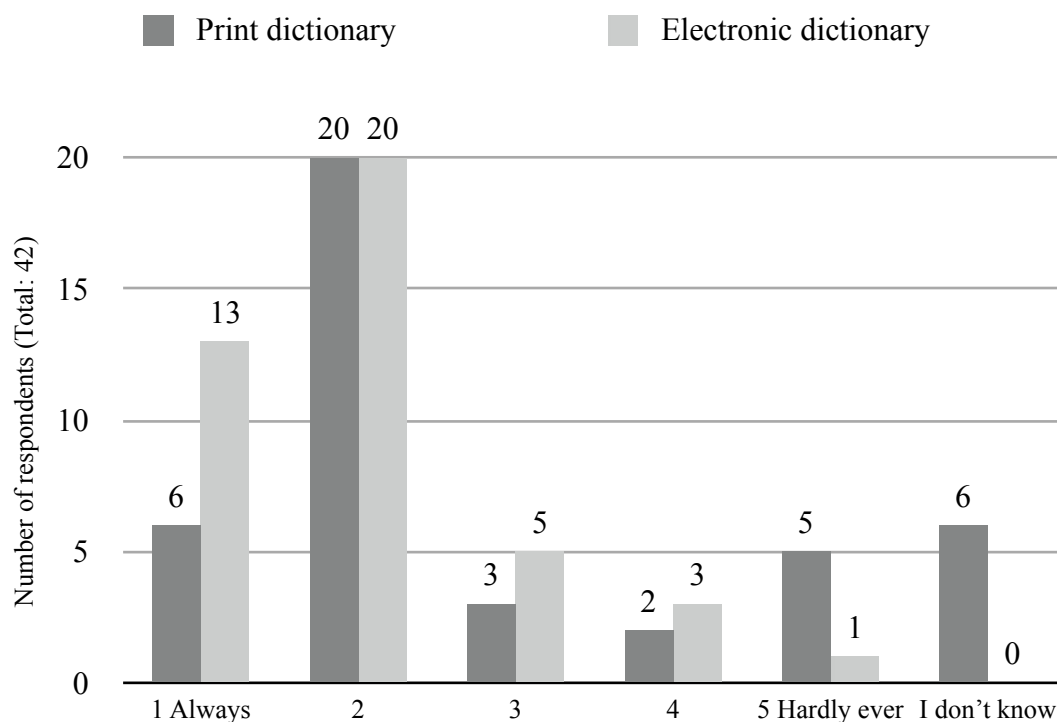


Figure 3. How often Finnish upper secondary school students find the information they need in print and electronic dictionaries

However, five respondents reported hardly ever finding the word they are looking for in print dictionaries. Although the question was rather wide, as it concerned print and electronic dictionaries in general, and finding the information needed depends largely on the dictionary used, it is interesting that overall print dictionaries were not evaluated higher than electronic dictionaries. Many respondents were aware of the possible quality issues related to free online dictionaries, as some of them might include information that has not been checked by any expert.

When interpreting the results of dictionary usefulness, one should be cautious, however. As most of the respondents hardly ever used print dictionaries, it probably has been highly difficult to evaluate the use of print dictionaries. This can also be seen in the results, as six respondents were not able to answer the question. Thus, it is probably more fruitful, if the answers to the last open-ended question about the respondents' views on electronic dictionaries are examined next.

When the respondents were asked to write briefly about their own opinion on electronic dictionaries, almost all of the answers contained some positive comments about how easy, convenient and fast electronic dictionaries are to use in comparison to print dictionaries. This, of course, is quite obvious and it supports the results of Figure 2 discussed above. Also portability was mentioned as a positive feature of electronic dictionaries. However, the answers also revealed something about the possible quality issues related to electronic dictionaries, especially regarding free online dictionaries.

Out of the total of 42, there were 16 answers (38.10%) indicating some level of concern about the quality and trustworthiness of some electronic dictionaries. One respondent wrote:

- (1) Elektroniset sanakirjat ovat painettuja sanakirjoja epäluotettavampia, sekä vaikeaselkoisempia. Elektronisista sanakirjoista on vaikea löytää sanan käyttöyhteyksiä ja merkityksiä. Ovathan ne toki painettuja sanakirjoja helppokäyttöisempiä, mutta luotan painettuun enemmän ja saan sieltä parempaa informaatiota. On toki olemassa hyviäkin elektronisia sanakirjoja, mutta ne ovat joko maksullisia tai vain tietyssä verkossa saavutettavia.

English translation:

Electronic dictionaries are less trustworthy and more complicated to understand than print dictionaries. It is hard to find the context and meanings of a word in electronic dictionaries. Sure, they are easier to use than print dictionaries, but I trust the printed ones more and I can get better information from them. Of course, there are also good electronic dictionaries,

in which the information is as good as in print dictionaries, but they are either not free of cost or only available in a certain network.

Apart from a great deal of awareness in dictionary use, this example highlights some of the problems related to some electronic dictionaries that have not been revised by any lexicographers or other experts. For instance, a more complicated layout of a dictionary entry could be avoided if the entry is well thought-through. Here, one could also point out the argument by Lew (2004: 180) that electronic dictionaries do not eliminate the restrictions of space. Too much information can cause a dictionary to be too complicated to understand, especially if the information has not been arranged properly.

Another interesting point from this example is the respondent's need for contextual information. This brings us back to the broader discussion about different dictionary types (led by Atkins and Varantola 1997, Laufer and Hadar 1997, Laufer and Levitzky-Aviad 2006 and Lew 2004). According to Atkins and Varantola (1997: 33) bilingual dictionaries (such as sanakirja.org, which was often mentioned in the questionnaire answers) are usually not used for finding grammatical or contextual information. Electronic bilingualised dictionaries, as in Laufer and Levitzky-Aviad (2006), could indeed provide present-day learners with the lexicographical information they really need in a fast and convenient format.

Some learners also seem to desire more trustworthy dictionaries. One could argue that some of the positive qualities of electronic dictionaries, such as convenience and speed of use, might be compromised if the learner has to check the word again from some other source after consulting a dictionary. One respondent writes that although electronic dictionaries have many advantages, he or she would like to have more options when choosing a dictionary, as the dictionaries he or she now uses result in a process of verifying the information in a dictionary entry from some other source:

- (2) Elektroniset sanakirjat ovat todella käteviä ja helppoja käyttää. Pidän niitä kuitenkin aika epäluotettavina, ja usein sanaa haettuani joudun tarkistamaan sen vielä jostain muualta sanakirjan lisäksi. Haluaisin tietää enemmän sanakirjoja ja löytää mahdollisimman luotettavan sanakirjan.

English translation:

Electronic dictionaries are very handy and easy to use. However, I think they are not very trustworthy, and after I have searched a word in a dictionary, I often have to check it from somewhere else. I would like to know more dictionaries and find one that is as trustworthy as possible.

However, one could also argue that search processes which demand using multiple sources develop learners' language awareness, as they have to rely on their previous knowledge of English vocabulary when searching for new words. Many respondents mentioned the importance of context when choosing the most appropriate word, and electronic dictionaries, which do not have as many space limitations as print dictionaries, might be able to provide a wider selection of word translations, which in turn could potentially raise the awareness of word context. In addition to commenting on the convenience of use, one respondent received the wider selection of translation suggestions as a positive feature of electronic dictionaries:

- (3) Ne ovat käteviä, sillä niihin pääsee melkein aina käsiksi. Jos etsii jotain tiettyä sanaa, niin usein sanakirjat tarjoavat useampia vaihtoehtoja, mistä voi valita kaikista vaihtoehdoista osuvimman.

English translation:

They are handy, because one can nearly always get access to them. If one is looking for some specific word, [electronic] dictionaries often give multiple suggestions, and one can choose the most appropriate one.

Here, one should be aware that choosing the word most suitable in a given context is a fairly advanced process, and it might be almost impossible for a beginner without the language awareness of a more advanced learner to choose the best alternative from a simple list of words, which is needed when using some electronic dictionaries. Once again, this not only raises the question of how information in a dictionary entry should be arranged, but also the question of different dictionaries for learners with different levels of proficiency, as discussed above. It should also be a reminder of the teachers' role in guiding their students towards more skilful dictionary use.

Gonzales (1999) discussed how beginning learners might face difficulties in utilising the information contained in dictionary entries. Although this remark was pointed towards entries in print dictionaries, one could argue that the use of electronic dictionaries still requires the same basic skills, but sometimes the user might even have to consider the trustworthiness of an entry. This underlines some newer challenges that teachers have to face when advising their students in using dictionaries. One such skill could be source criticism, as the abundance of electronic dictionaries, some of which are not revised by any experts, could be potentially misleading for a learner. The respondents in the present study were reasonably aware of such issues, but one should remember that they were all quite advanced learners of English.

To conclude, when examining the opinions given by the respondents, electronic dictionaries seem to have received a rather warm welcome by Finnish upper secondary school students. Although some respondents seemed worried about the trustworthiness of electronic dictionaries, one could say that the general opinion is rather positive, due to the convenience and ease of use of these dictionaries. In fact, one respondent went as far as calling electronic dictionaries "one of the best inventions". Such remarks could be seen as proof for a bright future ahead for electronic dictionaries, as predicted by Granger (2013).

5 CONCLUSION

The first research question of this small scale study was about learners' preferred dictionary types, in other words, whether they prefer to use print or electronic dictionaries. The answer to this question seems rather clear, as hardly any of the participants used print dictionaries on a daily basis. Among this group of 42 upper secondary school students in Finland, electronic dictionaries had gained the position as the most used dictionary type by a clear margin. It seems that the shift from print to electronic, as argued by Granger (2013), has already happened in the case of the students who participated to this study.

One should remember, however, that the results of a study this small are not generalisable, and on the basis of this paper, it is not certain if electronic dictionaries have such a dominant position compared to print dictionaries among other groups of upper secondary school students, let alone other groups of people. If a similar questionnaire was conducted for a larger group of participants, one could be able to analyse the current state of dictionary use in more detail, and one could also look for further possible reasons behind the phenomenon.

Investigation of the second research question showed that one possible explanation for learners preferring a given dictionary could be the situation in which the dictionary is used. It could be seen from the answers that some respondents used dictionaries with mobile devices, which they carry with them in situations where a traditional print dictionary would cause too much inconvenience. As most of the respondents reported having used a dictionary in some other place than school or home, and also for tasks other than school work, one could assume

that the increased portability of dictionaries in their electronic form has also made it possible for people to consult a dictionary in new contexts. In addition, the globalised world provides more encounters with foreign languages, and thus the need to consult a dictionary might arise in various new situations.

The last research question about the learners' opinion about electronic dictionaries also revealed an interesting finding. Although convenience and fastness of use was seen as a positive feature of electronic dictionaries, and although the forementioned portability proved to be an appreciated feature, as in studies by Kent (2001) and Li and Deifell (2013), the overall quality of some electronic dictionaries seemed to concern some respondents. One could argue that teachers should probably give more guidance in how to use different dictionaries, as some of them might require more critical evaluation of the information given in dictionary entries than others. This issue could be investigated in more detail in future studies.

Although the respondents had opinions about different dictionary types, the fact that they used print dictionaries very rarely meant that they could not be considered capable of evaluating the quality of print dictionaries and compare them to electronic ones. One cannot be sure of how much experience the respondents had on using different dictionary types, and although the questionnaire included two questions on whether one has received guidance on dictionary use at school, the amount of such training remains unclear.

Although this study does not give the answer to whether learners choose the dictionaries based more on the ease of use or the dictionary quality, the results of this study show that features connected with the ease of use and mobility are highly appreciated by many. As Lew and de Schryver (2014) argue, dictionaries have lost their status as an authority and become a tool for users to utilise, and thus the factor of user experience has become increasingly important. This should encourage lexicographers to create more quality dictionaries on electronic platforms, as this would clearly seem to fulfill the needs of the contemporary dictionary user.

BIBLIOGRAPHY

- Atkins, B.T.S. and Varantola, K. (1997). Monitoring Dictionary Use. *International Journal of Lexicography*. 10 (1), 1–45.
- Dörnyei, Z. (2007). *Research Methods in Applied Linguistics*. Oxford: Oxford University Press.
- Dörnyei, Z. (2009). *Questionnaires in Second Language Research: Construction, Administration, and Processing*. New York; London: Routledge.
- Gonzalez, O. (1999). Building vocabulary: Dictionary consultation and the ESL student. *Journal of Adolescent & Adult Literacy*. 43 (3), 264–270.
- Granger, S. (2013). Introduction: Electronic lexicography – from challenge to opportunity. In S. Granger and M. Pequot (Eds.), *Electronic Lexicography*. Oxford Scholarship Online, 1–12. [online] <http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199654864.001.0001/acprof-9780199654864-chapter-1>. (20 November, 2016).
- Hartmann, R. (1999). Lexical Reference Books – What Are the Issues?. *International Journal of Lexicography*. 12 (1), 5–12.
- Kent, D. (2001). Korean University Freshmen’s Dictionary Use and Perceptions Regarding Dictionaries. *The Korea TESOL Journal*. 4 (1), 81–92. [online] https://koreatesol.org/sites/default/files/pdf_publications/KTJ4-2001web.pdf#page=81. (20.5.2016).
- Knight, S. (1994). Dictionary Use while Reading: The Effects on Comprehension and Vocabulary Acquisition for Students of Different Verbal Abilities. *The Modern Language Journal*. 78 (3), 285–299.
- Laufer, B. and Hadar, L. (1997). Assessing the effectiveness of monolingual, bilingual and “bilingualised” dictionaries in the comprehension and production of new words. *The Modern Language Journal*. 81 (ii), 189–196.
- Laufer, B. and Levitzky-Aviad, T. (2006). Examining the Effectiveness of ‘Bilingual Dictionary Plus’ – A Dictionary for Production in a Foreign Language. *International Journal of Lexicography*. 19 (2), 135–155.
- Lew, R. (2004). *Which Dictionary for Whom? Receptive Use of Bilingual, Monolingual and Semi-Bilingual Dictionaries by Polish Learners of English*. Poznań: Motivex. [online] http://www.staff.amu.edu.pl/~rlew/pub/Lew_2004_book.pdf. (20.5.2016)

- Lew, R. and de Schryver, G.-M. (2014). Dictionary Users in the Digital Revolution. *International Journal of Lexicography*. 27 (4), 341–359.
- Li, J. and Deifell, E. (2013). Foreign Language Learners' Use and Perception of Online Dictionaries: A Survey Study. *MERLOT Journal of Online Learning and Teaching* 9 (4), 515–533.
- Loucky, J. P. (2010). Comparing Electronic Dictionary Functions and Use. *CALICO Journal* 28 (1), 156-174.
- Müller-Spitzer, C. (2014). Empirical data on contexts of dictionary use. In C. Müller-Spitzer (Ed.), *Using Online Dictionaries*. Berlin: Walter de Gruyter, 85–126.
- Ranjbar, M. (2012). The Relationship between Grammatical Knowledge and the Ability to Guess Word Meaning: The Case of Iranian EFL Learners with Upper Intermediate Level of Proficiency. *Theory and Practice in Language Studies*. 2 (6), 1305–1315.
- Töpel, A. (2014). Review of Research into the Use of Electronic Dictionaries. In C. Müller-Spitzer (Ed.), *Using Online Dictionaries*. Berlin: Walter de Gruyter, 13–54.

APPENDICES

Appendix 1. Questionnaire in Finnish

Arvoisa vastaaja, teen Jyväskylän yliopistossa kandidaatintutkielmaani lukiolaisten strategioista englanninkielisten sanojen merkityksen selvittämiseksi. Pyytäisin sinua lukemaan ohjeet ja kysymykset tarkasti ja vastaamaan oheiseen kyselyyn mahdollisimman huolellisesti. Kyselyn tulokset käsitellään luottamuksellisesti ja ne ovat täysin anonyymejä, eli voit vastata tähän kyselyyn nimettömänä.

OSIO I

1. Kuinka vanha olet?

_____ vuotta

2. Kumpaa sukupuolta edustat?

a) Nainen b) Mies

3. Minkä arvosanan sait edellisestä englanninkurssistasi?

4. Kuvittele tilanne, jossa törmäät vieraaseen englanninkieliseen sanaan. Kuinka toimit? Kerro mahdollisimman yksityiskohtaisesti vaihe kerrallaan.

5. Kuvittele tilanne, jossa et tiedä suomenkielistä sanaa englanniksi. Kuinka toimit? Kerro mahdollisimman yksityiskohtaisesti vaihe kerrallaan.

6. Oletko törmännyt edellämainitun kaltaisiin tilanteisiin muualla kuin kotona tai koulussa?

Kyllä / Ei

Jos kyllä, missä? _____

7. Oletko törmännyt edellämainitun kaltaisiin tilanteisiin muulloin kuin tehdessäsi koulutöitä?

Kyllä / Ei

Jos kyllä, mitä teit? _____

OSIO II

Seuraavat kysymykset koskevat **painettuja** sanakirjoja.

8. Onko kotonasi painettua englannin sanakirjaa?

Kyllä / Ei

En tiedä

9. Jos kotoasi löytyy painettu englannin sanakirja, mikä seuraavista se on? Jos kotoasi löytyy useampi englannin sanakirja, merkitse kaikki jotka muistat.

- a) suomi–englanti -sanakirja
- b) englanti–suomi -sanakirja
- c) suomi–englanti–suomi -sanakirja
- d) yksikielinen englannin sanakirja
- e) en tiedä, millainen sanakirja kotoani löytyy

10. Jos kotoasi löytyy painettu englannin sanakirja, kuinka usein käytät sitä?

- a) Joka päivä
- b) Kerran tai pari viikossa
- c) Pari kertaa kuukaudessa
- d) Muutaman kerran vuodessa
- e) En koskaan

11. Onko sinulle opetettu tai neuvottu painetun sanakirjan käyttöä koulussa?

Kyllä / Ei

Jos kyllä, millä asteella? a) alakoulu b) yläkoulu c) lukio

12. Kuinka arvioisit painetun sanakirjan käytön helppoutta?

Vaivaton 1 2 3 4 5 Työläs

En tiedä

13. Kuinka usein löydät etsimäsi tiedon painetusta sanakirjasta?

Aina 1 2 3 4 5 Tuskin koskaan

En tiedä

OSIO III

Seuraavat kysymykset koskevat **elektronisia** sanakirjoja. Elektroniseksi sanakirjaksi luetaan internet-sanakirjat sekä muut sähköisessä muodossa olevat sanakirjat (esim. CD tai älypuhelinsovellus, ei kuitenkaan Google Translate).

14. Kuinka usein käytät elektronista sanakirjaa?

- a) Joka päivä
- b) Kerran tai pari viikossa
- c) Pari kertaa kuukaudessa
- d) Muutaman kerran vuodessa
- e) En koskaan

15. Jos tai kun käytät elektronista sanakirjaa, millä laitteella useimmin käytät sitä?
Valitse yksi.

- a) Pöytäkone
- b) Kannettava tietokone
- c) Tablet
- d) Älypuhelin
- e) Muu, mikä? _____

16. Onko sinulla älypuhelimessasi sanakirjasovellusta?

Kyllä / Ei

Minulla ei ole älypuhelinla

Jos kyllä, minkä niminen sovellus? _____

17. Onko sinulle opetettu tai neuvottu elektronisen sanakirjan käyttöä koulussa?

Kyllä / Ei

Jos kyllä, millä asteella? a) Alakoulu b) Yläkoulu c) Lukio

18. Kuinka arvioisit elektronisen sanakirjan käytön helppoutta?

Vaivaton 1 2 3 4 5 Työläs

En tiedä

19. Kuinka usein löydät etsimäsi tiedon elektronisesta sanakirjasta?

Aina 1 2 3 4 5 Tuskin koskaan

En tiedä

20. Mitä mieltä olet yleisesti elektronisista sanakirjoista? Vastaa kääntöpuolelle.

→

Appendix 2. Questionnaire in English

Dear respondent, I am working on my bachelor's thesis at the University of Jyväskylä on upper secondary school students' strategies for finding out the meanings of English words. Please fill out this questionnaire as carefully as possible. The data of this questionnaire is analysed confidentially and fully anonymously, which means you should not write your name on this questionnaire.

PART I

1. How old are you?

_____ years old

2. Which gender are you?

a) Female b) Male

3. What was the grade of your last English course?

4. Imagine a situation where you come across with an English word that you do not know. What do you do? Please describe the process in as much detail as possible.

5. Imagine a situation where you do not know a Finnish word in English. What do you do? Please describe the process in as much detail as possible.

6. Have you come across with above-mentioned situations elsewhere than at home or at school?

Yes / No

If yes, where? _____

7. Have you come across with above-mentioned situations when doing something else than school work?

Yes / No

If yes, what were you doing? _____

PART II

The following questions concern the use of **printed** dictionaries.

8. Do you have an English dictionary at home?

Yes / No

I don't know

9. If you have an English dictionary at home, which of the following dictionaries is it?

- a) Finnish–English dictionary
- b) English–Finnish dictionary
- c) Finnish–English–Finnish dictionary
- d) English-only dictionary
- e) I don't know what type of dictionary I have at home

10. If you have an English dictionary at home, how often do you use it?

- a) Every day
- b) Once or twice a week
- c) A couple of times a month
- d) A few times a year
- e) Never

11. At school, have you been taught or had advice on how to use printed dictionaries?

Yes / No

If yes, on which level? a) primary school b) upper compreh. school c) upper secondary school

12. How would you describe the ease of use of printed dictionaries?

Effortless 1 2 3 4 5 Laborious I don't know

13. How often are you able to find the information you are looking for in a printed dictionary?

Always 1 2 3 4 5 Hardly ever I don't know

PART III

The following questions concern the use of **electronic** dictionaries. Electronic dictionaries are either online dictionaries or other dictionaries in electronic form (for example CDs or smartphone applications, but not Google Translate).

14. How often do you use an electronic dictionary?

- a) Every day
- b) Once or twice a week
- c) A couple of times a month
- d) A few times a year
- e) Never

15. If and when you use an electronic dictionary, on which device do you most often use it?

Please choose one.

- a) Desktop
- b) Laptop
- c) Tablet
- d) Smartphone
- e) Something else, what? _____

16. Do you have a dictionary app in your smartphone?

Yes / No

I don't have a smartphone

If yes, what is the name of the app? _____

17. At school, have you been taught or had advice on how to use electronic dictionaries?

Yes / No

If yes, on which level? a) primary school b) upper compreh. school c) upper secondary school

18. How would you describe the ease of use of printed dictionaries?

Effortless 1 2 3 4 5 Laborious I don't know

19. How often are you able to find the information you are looking for in a printed dictionary?

Always 1 2 3 4 5 Hardly ever I don't know

20. What is your general opinion about electronic dictionaries? Please answer on the next page.