



Uit

NORGES  
ARKTISKE  
UNIVERSITET

Fakultet for Humaniora, Samfunnsvitenskap og lærerutdanning

## «Paper dictionaries are sooo outdated!!!»

- *A study on Norwegian pupils' look-up strategies in the English subject*

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## **Acknowledgements**

Now that we are at the end of the road, we feel both happy and a bit sad. It feels great to have completed this semester and stand here, knowing that we were able to finish this paper. However, this represents the final chapter for our time here at the University, and we must now find our own path in life to explore. We would like to use this opportunity to give thanks to our supervisor, Hilde Brox, for guidance throughout the whole of our study. Thank you for believing in us, keeping us motivated and for all of the great conversations. We would also like to give thanks to our informants for making this project possible. We are particularly grateful towards the teacher who replied on our e-mail and accepted to participate in the study. Finally we would like to thank each other for the support and effort we have shown throughout the whole project.

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## Abstract

This study investigates Norwegian pupils' choice of look-up strategies in the English subject, and why they use these specific strategies. Additional questions are:

-Do the pupils use the same strategies at home, as they do in school?

-Where have they obtained/learned these strategies?

-Are the pupils competent enough to evaluate the quality of the results generated from the strategies?

Our methods of data collection were interviews and a questionnaire. 21 informants participated in our study; one class of 20 pupils in a lower secondary school in Tromsø and their English teacher. All 20 pupils participated in our questionnaire, while only four of them were singled out for interviewing. The teacher were also interviewed.

Through our research methods we found that Google Search Engine and Google Translate are the dominant look-up strategies amongst the pupils, and that the main reasons for using these specific strategies are their ability to be 1) *fast*, 2) *effective* and 3) *generate quality results*.

The results show that the strategies are mostly self-obtained, even though several pupils state that they have learned them from the teacher/school. The results both from our interviews and from our questionnaire indicate that the pupils' ability to evaluate the quality of the strategies varies within the class. It is argued in compliance with relevant theory and the results that the ability to evaluate the quality of the results generated from the strategies is dependent on the individual pupil's proficiency level in the English language. Results indicate that the pupils with a high proficiency level are more capable of verifying quality compared to pupils with mediocre or a lesser proficiency level.

Our findings are not transferable to the whole population of Norwegian pupils, but we have received valuable insight in the researched area and found tendencies which can be discussed in correlation with bigger populations. However, we argue that the results from our questionnaire can be transferred to the rest of the classes in the same lower secondary school, as one whole class participated in this method.



## Sammendrag

Denne studien undersøker Norske elevers valg av oppslagsstrategier i Engelskfaget, og hvorfor elevene bruker akkurat disse strategiene. Ytterligere forskningsspørsmål er som følger:

- Bruker elevene de samme strategiene hjemme som de gjør på skolen?
- Hvor har elevene lært å bruke disse strategiene?
- Er elevene i stand til å vurdere kvaliteten på resultatene som strategiene generer?

Våre forskningsmetoder for innsamling av data var intervju og en spørreundersøkelse. 21 informanter deltok i studiet vårt; en klasse på 20 elever fra en ungdomsskole i Tromsø og deres engelsklærer. Samtlige 20 elever deltok i spørreundersøkelsen vår, mens bare fire ble håndplukket til intervju. Læreren ble også intervjuet.

Gjennom våre forskningsmetoder fant vi ut at Google Search Engine og Google Translate er de dominerende oppslagsstrategiene blant elevene, og at hovedgrunnene for bruken av disse strategiene er deres evne til å være 1) *rask*, 2) *effektiv* og 3) *generere kvalitetsresultater*. Resultatene viser at strategiene er hovedsakelig selvlært, selv om en del av elevene sier at de har lært dem fra lærer/skole. Både resultatene fra intervjuene våre og spørreundersøkelsen antyder at elevenes evne til å vurdere kvaliteten på resultatene som er generert fra strategiene varierer innad i klassen. Det er argumentert for, i tilknytning til relevant teori og resultatene, at evnen til å vurdere kvaliteten på resultatene er avhengig av den enkelte elevs nivå i Engelskfaget. Resultatene antyder at elevene på et høyt nivå er mer kapable til å bekrefte kvaliteten sammenlignet med elevene på middels til lavt nivå.

Funnene våre er ikke overførbare til hele populasjonen av norske elever, men vi har mottatt verdifull innsikt innad i området og funnet tendenser som kan bli diskutert og knyttet til større populasjoner. Vi argumenterer imidlertid for at resultatene fra spørreundersøkelsen vår kan bli overført til resten av elevene på den samme ungdomsskolen, siden en hel klasse deltok på denne metoden.



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# 1 Introduction

## 1.1 Background

The paper dictionary has for a long time been the dominant source for finding translations and definitions of words, both within the educational environment, in schools and in ordinary, domestic spheres. Ever since the growth of the English language and its ascending role in Norwegian people's lives, the paper dictionary has been the commanding strategy when met with unfamiliar words. The paper dictionary has always been an essential part of learning a second language, functioning as a tool that helps and assists the learner throughout his/her educational course. The dictionary provides a complementary source of information to the teacher, making it so that the learners can work more independently. The dictionary is also important for the learners' vocabulary acquisition, both through monolingual and bilingual types.

However, after the technological development and the advent of computers and the Internet, the paper dictionary's assertive position is in a threatened state. We are now in a situation where the paper dictionary no longer serves as a monopoly for attaining information, as the technological development has brought with it a myriad of digital tools and media that provide the same function as their predecessor. There is a growing trend amongst young learners in using digital sources to collect information, and Internet websites like Wikipedia and Google Translate are commonly used sources not only in the pupils' spare time, but in their school hours as well.

Technology has also received a strong role in education. It started with computer labs, but today it is becoming more common that every pupil in Norway has their own personal computer available in the classroom in both lower- and upper secondary schools. Computers have many beneficial functions toward academic purposes. Writing essays, editing and finding information has become more efficient than it was before. Computers and the Internet have drastically changed the way we relate to information, as the amount of information that these innovations give access to is immense. The pupils are today exposed to an endless current of information through the Internet, and the risk of getting overwhelmed by the amount of information is far greater today than it was in the past. The strong position of digital technology in contemporary society has resulted in an emphasis on digital skills in *The*

*National Curriculum for Knowledge Promotion*, which now considers digital skills as one of the five basic skills.

## **1.2 Our motivation**

Both of us, the authors of this paper, have grown up in the digital era and are shaped and influenced by technology, mainly the computer and the Internet. When we attended primary- and lower secondary school, our primary sources of information in the English subject were the teacher, the textbook and the paper dictionary. When we needed to know the English translation for a Norwegian word, or the other way around, we usually asked the teacher or consulted a dictionary. This changed when we started upper secondary school and got our own portable computers, also known as laptops. The purchase of laptops resulted in the development of digital strategies, and off-line dictionaries such as *Clue* were dominant in the English subject at the time. As we did most of our work on the computers, we discovered that these digital dictionaries made our work within the subject much easier. The paper dictionary had by now transitioned from being an important source of information to being a “waste of time”, seeing, as there were digital options that provided us with the same service. Past upper secondary school and starting University, our strategies changed from off-line dictionaries to online dictionaries, where *Tritrans* and *Thesaurus* were the dominant ones. In addition to online dictionaries, Google Search Engine was also frequently used in order to find sites that would provide us with specific information.

During our practice periods, we have visited many different schools where we practiced our teaching. In many of the schools visited, we observed that there was an underlying digital culture amongst the pupils. Sites and applications like *Facebook* and *Instagram* were frequently used topics for conversation, and a wide range of computer games and online games were often mentioned and discussed. We got the impression that digital technology were a big part of their lives. Despite these observations and impressions, we were unable to fully investigate their digital habits in an educational setting.

Combining both the fact that we, the authors, are favoring digital sources regarding the attainment of information, and these pre-mentioned observations and impressions we got from our practice periods, we felt that it would be interesting to investigate pupils’ habits towards finding information.

### **1.3 Research question**

Our curiosity towards the pupils' digital habits eventually led us to the following research question:

Which look-up strategies do Norwegian pupils use in order to find translations and definitions of words in the English subject, and why do they use these specific strategies?

The first part of our research question speaks of *which* look-up strategies the pupils use in order to find this specific information. This part is considerably forthright, as we are asking for nothing more than what their strategies are. The term *look-up strategy* is in this paper defined as the specific strategies that are used for finding translations and definitions. The word *strategy* simply means which source, method, instrument, tool or website that is used for finding translations and definitions.

The second part of our research question concerns the question of *why* the pupils use their specific source, method, instrument, tool or website of choice. This is the more extensive part of our research question, and the part that transforms our research from being a cursory study to being more of an in-depth study.

Additional questions we will be looking to answer are:

- Do the pupils use the same strategies at home, as they do in school?
- Where have they obtained/learned these strategies?
- Are the pupils competent enough to evaluate the quality of the results generated from the strategies?

### **1.4 Hypothesis**

We are entering this research project with a hypothesis. Based on our own preferences regarding look-up strategies and our experiences from our practice periods, we believe that the majority of the pupils use digitalized look-up strategies. This hypothesis will to an extent govern our selection of theoretical framework for this paper.

## **1.5 Limitations**

In our study, we have based our research solely on one single class and their teacher. Considering the modest size of our samples, this confine our possibility to transfer our findings onto a big scale population.

In addition, the fact that our specific and narrowed area of focus is scarcely researched, we are forced to use theory that is not directly tied to our research question, but still theory that we can use to draw similarities and tendencies from to enlighten our own research question.

## **1.6 Outline**

Our study will be arranged in a traditional manner: Theoretical framework, methodology, results and analysis, discussion and conclusion.

In chapter 2 we will look into the theoretical perspectives surrounding our research field: vocabulary acquisition in second language learning, the roles of dictionaries and the digital competence of the digital generation. This chapter will consist of an overview of the difference between first and second language acquisition, why learning vocabulary is important in second language acquisition and how we learn words in a second language. This chapter will also examine the different aspects of paper based and digital dictionaries and the results other studies show from implementing digital dictionaries in education. Theory concerning digital competence and the digital skills of today's youth will also be discussed.

In chapter 3 we will describe the methods of data collection used in our study. This chapter shows our considerations regarding the methods of data collection, namely interviews and questionnaire, and the participants involved, in addition to the reliability and the validity of our study and ethical and methodical challenges that we have experienced.

In chapter 4 the results from the interviews and the questionnaire will be presented and made clear.

In chapter 5 we will discuss the results presented in the previous chapter in correlation with our research question, our additional questions and the theoretical framework presented in chapter 2.

In chapter 6, we will draw a conclusion and try to answer our research question and additional questions generated from the research question. We will present the main findings and issues, and establish eventual concerns that surround our topic.

In the final chapter, chapter 7, we will present a resource guide, which lists a selection of digital tools, dictionaries and applications that we find beneficial towards the English subject. This guide describes both the positive and negative aspects of the different digital tools, dictionaries and applications. We created this guide with hope that it would be helpful for teachers and pupils learning a second language.

## **2. Theoretical Framework**

Since we will be focusing on look-up strategies in a second language environment, our field of study is affected by several theoretical disciplines. Because of this we will be exploring some disciplines more than others. We justify this with the fact that we do not have room for exploring all the different disciplines in detail, and feel that our solution is satisfactory for presenting an agreeable and relevant framework for our theory.

### **2.1 Vocabulary acquisition in second language learning**

Learning a second language is different from learning a first language. Our main language is picked up at an early age through constant exposure. In this process, we obtain the capacity to comprehend the language and produce words and sentences. Second language acquisition however, is often mainly attained through our first language. We rely on our main language in order to learn the functions of the foreign language so that we are able to communicate and utilize it correctly.

According to Drew and Sørheim (2009), vocabulary is an essential part of learning a second language: “One cannot emphasize enough the importance of vocabulary for the foreign language learner. Not knowing the words we need in order to express what we want to say is extremely frustrating, and will seriously affect our ability to communicate” (Drew & Sørheim, 2009:159). Vocabulary is important for communication, be it through reading, writing, speaking or listening, and thus it is crucial for educators to focus on developing the learners’ vocabulary and strengthen their mental lexicon.

Language learning is achieved through comprehending the meaning of words and being able to use them properly in different context. Vivian Cook (2001) describes four disciplinary

categories for learning words sufficiently. The four categories are *forms of the word*, *grammatical properties*, *word combinations* and *meaning*. The forms of the word are understood as how the word is pronounced and how it is spelled, meaning that every individual speaker of the language has the understanding that a word is spelled in a specific way and is pronounced in a specific way according to the rules of the language itself. Grammatical properties have to do with the grammatical aspects of the word. This includes what function the word has in a sentence, be it a noun, a verb, an adjective etc., how sentences are structured around the specific word and how the word changes from one form to another depend on the tense of the word. Lexical properties combine the different combinations the word conventionally appears in, and the appropriateness of the word; in which contexts the word might be used and in which contexts the word should be omitted. The last category concerns the semantic part of the word, the actual meaning. A word often has a general meaning that is generic for most of the language speakers/learners, but can also have a more specific meaning according to context.

Educators play an important role for pupils learning a second language when it comes to vocabulary development. They write new difficult words on the blackboard so every pupil can observe them, they discuss with their pupils the different forms of the words, their grammatical purpose, and examples of how the words can be used in sentences and their definitions. Dictionaries can also assist pupils in learning words through Cook's four categories for vocabulary. However, the users must comprehend this information on their own instead of receiving it through their educators.

The pupils' choice of look-up strategies is also likely to have an important impact on their vocabulary and second language development. If the look-up strategy is unreliable and the pupil lacks the competence to evaluate the reliability of the strategy, the results could sometimes turn out wrong, and the pupil is left with a misconception of what the word actually means and in what contexts it can be used. Schools and educators must therefore promote efficient use of look-up strategies and inform of the negative effects improper look-up strategies can have on second language learning.

## **2.2 The role of dictionaries**

Traditional, paper-based dictionaries used to be one of the most important tools in learning a second language, and in language learning in general. When met with unfamiliar words, the commanding strategy was often to leaf through bundles of pages in the printed encyclopedia

until the specific word appeared. However, after the technological progress a few decades ago, easier and more accessible alternatives to the paper dictionary started to emerge, and digitalized tools and strategies for finding words and all of their aspects has now removed the status of the paper dictionaries as the only place to find words.

### **2.3 Previous research**

A number of studies have been conducted on the use of digital dictionaries and their effect on different aspects of language learning. In a study from 2013, Lin Jin looks at foreign language learners' perception of online bilingual dictionaries among students enrolled in postsecondary language courses in the United States, along with their look-up behaviors while reading, writing, listening and speaking. One of her questions was the basic question whether online dictionaries are in fact beneficial for foreign language learners. Jin found that they: "Provide helpful and convenient assistance for FL learner's access to and learning of lexical meanings and forms in reading, writing, listening and speaking tasks, as well as word pronunciation in listening and speaking tasks (Jin, 2013:524). As the digital dictionaries are easily accessible on any computer with an Internet connection, it is likely to believe that pupils often will resort to these kinds of digital look-up strategies than other time-consuming strategies, such as the paper dictionary. In addition, when confronted with Jin's findings that digital dictionaries provide *helpful* and *convenient assistance*, we know that there is justification behind choosing digital strategies.

In a study from 2011, Aud-Mari Langegard looks at how digital dictionaries are used by young Norwegian learners of English as a foreign language. In her study, she asked the learners what type of dictionary they prefer in English. The results show that 68,5 % of the participants preferred using digital dictionaries and 24,1 % paper dictionaries (Langegard, 2011:63). This coincides with our hypotheses that the majority of the pupils use digital look-up strategies; that printed media is declining in terms of usage and digital media is on the rise. As a follow-up question, she asks the learners to state their reasons for preferring digital dictionaries. The most favorable feature and the most important reason for using online dictionaries, was speed (46 %), followed by convenience (38%) and ending with quality on a surprisingly low percentage of importance (13%) (Langegard, 2011:64). This result is interesting, mainly because the learners value speed and convenience over quality and by a large margin as well. In Langegard's view, pupils prefer quick results rather than the time-consuming nature of paper dictionaries and that online dictionaries are easily accessed on

one's computer, thus giving more time for the actual assignment. Online dictionaries are efficient in the sense that one types in the word in question, instead of spending time locating it, which is the case for the paper dictionaries.

The fact that the participants in Langegard's study significantly deprioritize quality raises some intriguing questions: Are the learners indifferent to the quality of the outcome when using digital look-up strategies, as long as the digital tools and dictionaries they use can provide information relatively quick? Or are the learners' competence and proficiency in digital dictionaries at such a high level that they are capable of knowing and distinguishing between the dictionaries of low quality and those of high quality?

In a study by Blikstad-Balas and Hvistendahl (2013), they investigate the role of *Wikipedia* in the classroom. Wikipedia is a popular site in relation to school and schoolwork according to the previously mentioned authors. In their study, they asked the pupils to state what they consider to be the advantages and disadvantages of using Wikipedia. A main tendency that was found regarding this question was that it is easy to use Wikipedia, easy to read from it and that it is fast. On the other hand, another main tendency was that one can not be certain that the information coming from Wikipedia is reliable or not. Considering Wikipedia's popularity among young learners, one could assume that the reliability of the information is not emphasized from the pupils' perspective as equally important compared to the degree of effectiveness and simplicity that the site holds. Blikstad-Balas and Hvistendahl shares this view, stating that "These reasons relate to practical issues rather than to the overall quality of Wikipedia" (Blikstad-Balas & Hvistendahl, 2013:44) The authors also make a point related to the development of critical thinking and digital literacy, discussing that these aspects of digital competency seem unattainable if the pupils are only using one source of information.

Unlike digital dictionaries and other digital sites and tools that function as translators and/or as means of finding definitions, Wikipedia is a site which provides information and knowledge about something. However, based on the fact that Wikipedia is a digital source, we feel that some of the points that the authors make is transferable to digital strategies as a whole and thus to our own study.

### **2.3 The digital competence of the digital generation**

The previous mentioned studies show that pupils prefer using digital tools and dictionaries rather than paper dictionaries. It is therefore significant to discuss if today's pupils are capable of using digital look-up strategies efficiently, if they have the required digital skills to so and

how digital skills are reflected in the competence aims for the English subject in LK-06. We will also look into the beliefs that today's youth have remarkable technological skills, being more advanced than previous generations.

### **2.3.1 Digital competence**

“Digital competence” is a central concept in most current debates on education. The term appears in a variety of contexts, yet without a clear, unifying definition (Ilomäki et. al, 2014). The discussion revolves, among other things, around what kind of knowledge is important in order to take advantage of the opportunities that come with technology, and how technology can be beneficial for learning. Schools are responsible for helping and preparing their pupils to find their role in society. As today's society is infused with technology, should not schools therefore promote digital competence more than ever?

The term digital competence might generally be understood as having the skills and the knowledge to use computers and the Internet. The term has been well defined in international educational environments, but this is not to say that these definitions of the term will fit into the Norwegian educational system. Ola Erstad (2010) has tried to break the term down and adapt it to Scandinavian standards. He adds a cultural aspect, explaining that an important part of the concept of teaching digital competence should entail observing today's youth true identity, how they learn and what they need to learn. The cultural conditions of today are different from what they were generations ago, and both the new generation of learners and the society have changed, which calls for change in the learning and teaching of competence as well. Erstad describes the term as both a condition for the usage of new media and a goal in itself:

Digital competence is acquired by the young through every-day culture, and it constitutes a condition for how they use new media. It is with this foundation of experience and knowledge that the youth meet the school. The school's task will then be to further build on this foundation, to challenge it and to fabricate new insight and cognition into a goal for the education. [our transl] (Erstad, 2010:17)

Competence is valuable in two ways: One is the ability to receive and analyze, to listen, read and understand. The other is the ability to express oneself and produce, to talk and to write. Erstad stresses the significance of both, emphasizing that both have to be considered in the definition of the term. Competence also demonstrates a certain plan of action and judgement,

which is a combination of skill, knowledge and attitude. It is not only a question of having the skills and the knowledge to resolve a problem, but also a question of acquiring strategies and routines for using the skill and the knowledge one already possesses. Erstad lists several components that constitute the foundation of digital competence based on the framework of today's school:

<b>Basic skills</b>	Opening software, assort and save information on the computer, and other basic skills in using computers and software.
<b>Downloading/uploading</b>	Downloading/uploading different types of information from/to the Internet.
<b>Searching</b>	Knowledge about information and how to access it.
<b>Navigating</b>	Being able to navigate in digital network, computer games etc., i.e. learning strategies for Internet usage.
<b>Classifying</b>	Being able to organize information in relation to a classification, genre and so on.
<b>Integrating</b>	Being able to compare and compile different types of information in relation to multimodal texts.
<b>Evaluating</b>	Being able to assess and evaluate if the Internet search has been productive. Being able to evaluate the quality, relevance, objectivity and utility of the information found (source criticism).
<b>Communicating</b>	Being able to communicate information and express oneself through different media.
<b>Cooperating</b>	Being able to engage in net-based, learning relations with others, and to use digital technology for cooperation and participation in networks.
<b>Creation</b>	Being able to produce and compile different types of information such as multimodal texts, create home pages etc. The ability to develop something new by using specific digital tools and software. Remixing.

[our transl] (Erstad, 2010:101/102)

The table signifies the importance of handling information that is found on the Internet and through other digital sources; emphasizes the ability to use, save, assort, download/upload, organize, evaluate, compare, compile, distinguish, access and produce different types of information, and encouraging pupils towards critical thinking when it comes to digital sources. Erstad also says that these components may change over time, and new components can be added to the list.

Rune J. Krumsvik presents another model of digital competence based on Erstad's, but where he finds other aspects to be equally important:

9. *Fundamental ICT-Skills*
10. *Pedagogical-didactical ICT-judgement*
11. *Learning strategies and metacognition*
12. *Digital bildung* (sic. from the Norwegian word «danning»)

[our transl] (Krumsvik, 2007:71)

Similar to Erstad's components of digital competence, the first two objectives relate to the basic digital skills in order to *use* technology. The two last components on the other hand, describe digital competence in greater detail. Krumsvik suggests that digital competence can be achieved through learning strategies, explaining that the various learning strategies acquired by the pupils in order to handle the different digital challenges are closely related to how well they master the use of digital tools in an educational setting. Also, he states that the digital competence of the teachers themselves are equally important for equipping pupils with the right set of tools and strategies in order to survive in the growing current of digital influence.

*Digital skills* is one of five basic skills constituted in *The National Curriculum for Knowledge Promotion* from 2006, or *Kunnskapsløftet* (hereafter LK-06), alongside with writing, reading, speaking and arithmetic. Digital skills in the English subject is defined as:

*Digital skills* in English means being able to use a varied selection of digital tools, media and resources to assist language learning, to communicate in English and to acquire relevant knowledge in the subject of English (...) This further involves using digital sources in written texts and oral communication and having a critical and independent attitude to the use of sources. Digital skills involve developing knowledge about copyright and protection of personal privacy through verifiable references to sources (LK-06).

The Knowledge Promotion's definition emphasizes independence towards digital tools, where pupils should learn to operate and navigate through the different digital media in a self-regulated fashion and also be able to evaluate different qualities of tools and develop knowledge about ownership of information and the proper ways of using information found. In the competence aims found in the English subject curriculum from year 8-10, there are several aims connected with digital tools and the usage of digital tools, e.g. as found under the category of *Language Learning*: "The pupils shall be able to select different digital resources and other aids and use them in an independent manner in own language learning" (LK-06)

and under the category of *Written Communication*: “The pupils shall be able to use digital tools and formal requirements for information processing, text production and communication (LK-06). However, the competence aims have been criticized to some degree for their nature of being less ambitious compared to how digital skills are presented in both the general plan of K-06 and the specific plan for the English subject.

Andreas Lund (2007) states in his article *ICT and EFL: What can we now do with language?* that the national curriculum has had a change of view when it comes to ICT (Information and Communication Technology); that it has gone from being viewed as “mere tools that require instrumental skills” to “ICTs as a type of cultural expansion” (Lund, 2007:31). As viewed in previous national curriculums, ICT has had a more confined definition where the instrumentality was the focal point, and where the use of ICT was narrowed down to the ability to operate and use digital tools. In the contemporary national curriculum, however, the term is viewed in a cultural light with focal points such as authenticity, online communication and critical thinking. In spite of this transformation, Lund argues that the ambitious and detailed descriptions of the requirements of digital skills as a basic skill are not recognized in the competence aims of the English subject. The competence-based aims are broad and vague and seemingly less emphasized than other competencies, the exception being the category of communication where ICT seems to have a strong position.

Erstad and Krumsvik discuss the digital skills which is required in order to be digital competent. We believe that pupils who use digital look-up strategies should especially be able to separate between reliable and unreliable digital tools and dictionaries. If not, they might be left with a misconception of what words and translations actually mean and in what context it can be used. This might affect their development in their second language. Therefore, the ability to evaluate the reliability of digital tools and websites, use them correctly and assess them critically are vital skills in order to use digital look-up strategies properly. However, these basic skills are only partly reflected in the competence goals for English in LK-06. Are pupils able to evaluate the digital dictionaries and tools they use, and do they get practice in how to evaluate them?

### **2.3.2 Digital Natives**

Since today's youth are raised in a digital society, many believe that they are superior to older generations regarding practicing technology and how to use it efficiently. The term *digital*

*native* was first mentioned in Marc Prensky's article "Digital Natives, Digital Immigrants" in 2001. It has become a popular term, especially among teachers. Prensky defines the term as people who are native speakers of the digital language of computers, video games and the Internet. "They have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age" (Prensky, 2001). According to Prensky, the older generations are *digital immigrants*. They were not born into the digital world, but they were introduced and adapted to the newly developed technology of the modern society.

According to Prensky (2010), it is a 'great mistake' for teachers to first teach themselves how different technology and software works, before letting their pupils use them. He states that it is more beneficial if pupils learn it by themselves, teach each other, and then teach it to their educator. His reason for this statement is that pupils might prefer using other digital tools than what their teacher favours and promotes to them. In their book *Virtual Schooling*, Kanna, Gillis and Culver (2009) agree with Prensky's statement that pupils are more capable to find and learn by themselves which technology and digital tools are more profitable towards their learning: "For the first time in history, our children are teaching us! They are driving the bus on technological change and letting us ride along when we can manage to hop on" (Kanna et al., 2009:121). Kanna et al. further describe that the vast increase of technology and gadgets in our daily lives have given pupils a wide range of ways to learn new things. Therefore, it has become more important than ever for the pupils to become self-directed learners.

Prensky believes that pupils already are digital competent since they grew up in a society filled with technology. They have developed their own digital look-up strategies and are more qualified to distinguish between reliable and unreliable sources than their educators. With this in mind, how can we be certain that the look-up strategies pupils' use is sufficient if they are left to themselves?

The statement Kanna et. al make regarding that we are now being taught by our children is questionable. Today's youth might be digitally competent in terms of operating technical devices, but is that sufficient enough? Andrew A. Zucker believes this not to be true. In his book *Transforming Schools with Technology* he says "People are now able to quickly find

more information on almost any subject than was ever before possible. However, this does not necessarily mean that students, in particular, are able to judge the reliability of information they find” (Zucker, 2008:204). Zucker mentions a test developed by the Educational Testing Service (ETS), where they tested information and communication technology literacy among thousands of American students at several institutions. The results showed that many students had problems of narrowing online searches, evaluating web pages objectivity, credibility and opportunities. “Only 35 percent of students selected the correct revision» (Zucker, 2008:204).

Zucker discusses further the effects technology can have on education. He states, “the days of wondering whether technology can improve elementary and secondary schools are over” (Zucker, 2008:189). However, he believes technology is still ‘a work in progress’, but it, given time, can transform schools for the better: “But digital tools are not magic. Introducing laptops or other tools has to be accompanied by efforts to teach higher-order thinking and by aiming at other challenging goals, not just teaching the old basic skills” (Zucker, 2008:193). Even though today’s pupils have a high understanding of how to use technology, it does not mean that they are capable of evaluating the reliability of different websites, digital tools etc. Zucker states that schools need to aim their attention towards further teaching of critical thinking, inquiry and problem-solving in order to successfully implement technology in schools and pupils’ study habits.

Brian Cowan examines in his article “Why ‘Digital Natives’ Aren’t Necessarily Digital Learners” if pupils truly have as advanced digital skills as many believe them to have. It can seem as if Cowan is against the implementation of electronics and digital tools, but he assures that he is a ‘technophile’, believing that they can be effective and beneficial towards learning. He states that results towards learning do not rely on the technology that is being used, but rather on the teacher’s expertise and if pupils are motivated: “It will not necessarily make learning easy or fun. It can, however, make learning more accessible, and, if properly applied, more effective” (Cowan, 2011). Cowan investigates the different myths that has emerged in today’s technological society. One of these myths, are that “digital natives are automatically digital learners” (Cowan, 2011). He defines ‘digital natives’ as kids raised in a digital household and that are special and exceed previous generations. Cowan mentions an example

where he once was appointed the lecturer for a class of digital natives. Since he was to teach the digital generation, he decided to hand out a single page detailing course instruction that explained how to log on the course's website. The web page contained everything the pupils needed to know about the course (the course outline, materials for different lessons, information etc), "Yet in the next-to-last class of the semester, students were still asking basic administrative questions that had been clearly explained on the Web site from the beginning" (Cowan, 2011). Cowan concluded that even though he used technology that today's youth was very familiar with, it did not make them digital learners.

Anoush Margaryan, Allison Littlejohn and Gabrielle Vojt (2011) explore this myth further in their article "Are digital natives a myth or reality? University students' use of digital technologies". They conducted a study investigating how digital technology affects learning and socialization among university students. Their findings showed that digital natives do to some degree use more digital tools than previous generations. Nevertheless, the survey displayed that the participants used a limited range of digital tools and that they had little competence in how they could use them towards learning. For this reason Margaryan et al. conclude that 'digital natives' are not as remarkable as others believe: "Students have limited understanding of what tools they could adopt and how to support their own learning. These findings challenge the proposition that young people have sophisticated technology skills, providing empirically-based insights into the validity of this assertion" (Margaryan et al., 2011).

Similar results are found in Kennedy and Judd's research from 2011. They state that pupils' information seeking behaviour has changed within the last ten years. Pupils tend to use Google and Wikipedia, instead of more reliable sources such as libraries and Google Scholar. "Students knowingly preferences less reliable tools and sources in their search for study related information in order to access and gather information quickly and easily" (Kennedy and Judd, 2011:124). Kennedy and Judd's findings show that students use sources that are simple to use, in order to find information more quickly, rather than using tools that are more complicated but at the same time might lead to more reliable results. Since the majority prefer using commercial websites and search engines rather than academic sources, it made them question how students are using these tools. They found this evidence in the works of Head and Eisenberg (2009,2010).

Students are simply using resources such as Wikipedia to ‘scope’ the academic ‘problem’ they are researching. However, there is also ample evidence showing that many students are relying extensively – and sometimes solely – on tools such as Google and Wikipedia for their scholarly information seeking and are doing so in fairly unsophisticated manner (Kennedy and Judd, 2011:124).

Kennedy and Judd say that not many pupils live up to the standards of being a “digital native”. They only scratch the surface when gathering information. The goal is to be able to reproduce this information, not to learn it. These search strategies are not regarded to have high educational value (Kennedy and Judd, 2011).

Cowan, Margaryan et. al, Kennedy and Judd all display evidence that pupils are not always suited to find relevant and genuine information on their own and that they lack certain digital skills. They are not digital competent enough and their look-up strategies are not as sufficient as they should be in order to conduct reliable searches. We mentioned earlier Lin Jin’s (2013) study, where the results show that digital dictionaries can be helpful towards foreign language learners. Jin also finds that the subjects are able to evaluate the online dictionaries, locating their strengths and weaknesses compared to paper dictionaries. The subjects often used several sources when locating words, as they were aware of the margins of error in the dictionaries. Other sources included Google Search and Google Translate, which were often used as complementary tools to online dictionaries due to, “Google Translate’s lack of grammatical explanation and its perceived word-to-word function (Jin, 2013:524). However, Jin states that even though the subject’s conscious alertness to the instability of the digital dictionaries shows a certain amount of dependency and critical thinking, it does not necessarily mean that the learners are able to evaluate the quality of the results generated from the different dictionaries, and she especially underlines learners at a lower proficiency level. As previously shown, evaluating the quality of digital tools and strategies are crucial aspect to the term digital competence in both the definition of Erstad (2010) and Krumsvik’s (2007). This is an important feature for being able to distinguish between reliable and unreliable digitalized sources, and lack of it might result in a learning deficit or confusion as to the words generated by the different digital dictionaries and other digital sources. With this in mind we conducted our research.

### **3. Methodology**

Christoffersen and Johannessen (2012) describe a method in a research context as following a specific path towards a set goal. Briefly stated, a method is a specific tool that researchers use to find what they are looking for. As we are teacher students and our targeted research arena is the school, we automatically fall within the boundaries of social science. In the social sciences, research methods are applied in order to gain information about the social aspects of reality; about societal conditions and processes (ibid). Information is generally gathered from *people* in one way or another, which makes it essential to be conscious of the fact that people interprets reality differently, and knowing this, choose our methods accordingly. Bogdan & Biklen (1998) characterizes research methods as: "...the specific techniques you use, such as surveys, interviews, observation – the more technical aspects of research" (Bogdan & Biklen, 1998:31). Furthering their explanation, they state that which methods that should be employed are based on the research goal and has to be consistent with the general logic of the methodology that embodies the research.

#### **3.1 Our study**

Our study aims to gain information about what kind of look-up strategies the pupils use, but also the reasons behind their choice of strategy. This means that we need both information about the pupils' habits and access to their thoughts. Our study was conducted in a lower secondary school in Tromsø, and was centered on a tenth grade class and its English teacher. The reason we chose to conduct our research in a lower secondary school was because our educational program is specialized on the fifth to the tenth grade. Thus, we wanted to focus our research on this area so that the knowledge we gain from this project could better and more authentically be transferred to our future work place. An additional reason for choosing the lower secondary school in Tromsø was that these schools receive funding in order to equip pupils with their own personal computers. We believed that this would be important for our study because of our hypotheses that pupils use digital look-up strategies. However, the specific class that we conducted our research on had not gotten this funding, but the grades below (8<sup>a</sup> and 9<sup>a</sup> grade) had, resulting in the pupils from the tenth grade often using the lower grades' computers.

A total of 21 people took part in our study. The 21 participants consisted of 20 pupils from the same class and their English teacher. The 20 pupils did not make the whole class, as there were pupils absent when we visited the school. All 20 pupils participated in a questionnaire

regarding their look-up strategies, while only four pupils were selected for interviewing. These four pupils will collectively be regarded as our focus group, and consisted of two boys and two girls. The boys were interviewed in pairs, and so was the girls. The teacher was also interviewed regarding her view on the pupils' strategies and other aspects of interest.

### **3.2 Qualitative versus quantitative methods**

In a research capacity, one often distinguish between *qualitative* and *quantitative* methods. The quantitative method is based on collecting data from a wide selection of people. The aim of this method is to generalize, and to find tendencies from the selection of people that can be transferred to the whole population. The qualitative method gathers information from a more concentrated selection of people, and is determined to enlighten more qualities about the gathered material, and is in other words a method that explore the empirical data more in-depth. The difference between the two methods concerns how they relate to the data/numbers that are gathered. As a simplified explanation of the difference between the two methods, one could say that in the quantitative method we are looking to gather less information from a larger selection, whilst in the qualitative method we are looking to gather more information and a deeper understanding of the information from a smaller selection of people (Bjørndal, 2008). By using the qualitative method, we get the opportunity to ask questions such as “What are your thoughts about...?”, “What experiences do you have with...?” or “What do you feel about...?” By asking questions such as these one will often get a more authentic understanding of people's reality. While observing a class of pupils in a reading session, we can see how these people are behaving. Some may be concentrating on what is being read, some may be whispering amongst themselves, while others might be staring blankly out of the window. We can observe their behavior, but we cannot know the reasons behind it. This is when qualitative methods comes into play, for example the interview. By asking these pupils why they are staring out the window or chitchatting instead of paying attention to the text that is being read, we will get a deeper understanding of their actions.

As we mentioned earlier, our study aims to gain information about what kinds of look-up strategies the pupils use, but also the reasons behind their choice of strategy. As our research question calls for an understanding of the pupils' thoughts and feelings, we would need a conversation with them. With this in mind, it was clear to us that the *interview* would be a suitable method for us to use in order to achieve this kind of information. By using the

interview as a method, we would be able to shed some light on the *why* in our research question, as in why the pupils use their specific strategies. However, as the interview is a comprehensive method that demands a great amount of time, we recognized that this method would only provide us with empirical data from a limited amount of informants, given our narrow time span. As this was acceptable for the last part of our research question, we would be needing a bigger selection of informants for the first part of our research question; this because we wanted to look for tendencies and make generalizations from the data we collected. Combining this with the fact that the first part of our research question does not call for an in-depth investigation into the people's world of thoughts, we established that a *questionnaire* would be fitting as a complementary method for providing us with sufficient empirical data from a sufficient amount of informants.

### **3.3 Selection of informants**

The process of selecting informants started rather slowly. We sent out several emails to both schools and directly to English teachers in the hope that they would agree to participate in our study. Two teachers replied and agreed on participating in our study. One of them was the teacher that is involved in our paper, and the other one was a primary school teacher. As our area of focus was the lower secondary school, we did not further any more contact with the primary teacher. We would have wanted perspectives from several teachers, but as we did not manage to recruit any more, we would have to be satisfied with the one teacher that was willing to help us.

Selecting respondents for our questionnaire was easy enough, since the teacher allowed us to conduct the questionnaire in her class, supplying us with 20 pupils as respondents.

The pupils for our focus group was singled out in compliance with the teacher. We wanted four pupils because we were confident that such an amount would present us with enough insight to discover tendencies and valuable information, and since we were also planning on using a questionnaire, we felt that four interviewee's were enough. We wanted pupils with average grades in the English subject. This was because we wanted to find general tendencies representative of the average pupil, and not tendencies that were exclusively representative for the least or the most proficient pupils. We also wanted our focus group to be equally divided according to gender, i.e. two boys and two girls. The reason for this was that we wanted to ensure that we did not just gather material from a male point of view, but also from

a female's point of view, in case there were discrepancies among the genders in accordance to their strategy usages.

In order to protect the informants true identities, we chose to give them fictional names. The two boys will be called Harald and Håkon, while the two girls will be called Mari and Anne.

### **3.4 Methods of data collection**

In this part of the chapter, we will make accounts for our choice of methods, describe them and describe the process of conducting them

#### **3.4.1 Questionnaire**

As previously mentioned, our questionnaire (appendix 1) was conducted in a tenth grade class with 20 pupils participating. The aim of the questionnaire was to gain general knowledge about the pupils' use of look-up strategies and would as mentioned function as a backdrop to the interviews and as inspiration for possible topics and discussions in the interviews. Kumar (1999) describes the questionnaire as "a written list of questions, the answers to which are recorded by respondents. In a questionnaire respondents read the questions, interpret what is expected and then write down the answers (Kumar, 1999:110). The questions in the questionnaire are uniform, meaning that the questions are the same for every respondent, which is why the results from the questionnaire are often easy to generalize from. Creswell (2003) explains that the survey "provides a quantitative or numeric description of trends, attitudes, or opinions of a population. From sample results, the researcher generalizes or makes claims about the population (Creswell, 2003:153) (note that we are using Creswell's definition of a *survey* because it captures the same aspects as the questionnaire).

Before the questionnaire was put to use, it was tested on two relatives. These were in the same age group as the pupils that participated in our field study. It was important for us to get feedback on the questionnaire before writing the final draft. We found their evaluation to be very valuable since they described what they expected of a questionnaire and which words they found hard to understand. We felt that their feedback helped us construct a questionnaire that would cause no misunderstandings or confusion.

#### **3.4.2 Conducting the questionnaire**

Our questionnaire consisted of 12 questions distributed between three parts. The first part was aimed towards the pupils' usage of look-up strategies in school, the second part towards their

usage of look-up strategies in their spare time, whilst the third and last part focused on the quality of the look-up strategies. The questions were for the most part closed and structured, accompanied with alternatives in which they had to either arrange in order of importance or select the most fitting one. Only four of the 12 questions demanded an explanatory answer. Christoffersen & Johannessen (2012) explains that there are different forms of the questionnaire depending on its level of structuring. A structured questionnaire consists of closed questions with predetermined alternatives, whilst an unstructured questionnaire consists of open questions and offers more latitude to the respondent when answering. We chose for the most part structured questions, because we wanted the ability to generalize from the sample results and look for tendencies that could be transferrable to reality. The few semi-open questions that we used in our questionnaire were chosen in order to find out *which* strategies the pupils use and in order to find out the reasons behind the pupils' answers on quality.

The whole of the questionnaire was written in Norwegian, both the introduction, the questions and the alternatives. Norwegian was chosen because we felt that the pupils would provide us with better and more authentic answers if they could use their mother tongue, in addition to that we eradicated the risk of having to explain different terms that would be harder for them to understand in English.

The questionnaire was conducted in writing, meaning that the pupils were given the questionnaire in paper format and that they had to use pen or pencil when answering. This was a conscious decision on our part, because we both have experienced technical issues when conducting questionnaires digitally in the past, and we wanted to prevent such issues from delaying or obstructing our research. After the questionnaire was finished and collected, we uploaded the results to [www.surveymonkey.com](http://www.surveymonkey.com) where they were analyzed, compiled and portrayed through graphs and tables.

### **3.4.3 The qualitative interview**

We conducted three different interviews in our study. The first interview was with the teacher and the second and third were with the focus groups. The reasoning behind using interviews as a method was because we wanted to know why the pupils use their specific look-up strategies and their thoughts and views on different aspects of language learning and digital

media. The interviews with the focus group also gave us the opportunity to discuss the results from the questionnaire in order to solve any issues or questions that might have emerged after the questionnaire was conducted, and to get a deeper understanding of the attitudes and perceptions behind their answers.

Kvale & Brinkmann (2012) describe the interview as conversation between an interrogator and one or more informants. The conversation is purposeful, where the interrogator has a clear goal or goals that he is trying to reach by conducting the interview. The qualitative interview is a form of method with the purpose of getting a detailed view of the informant's reality, rather than a quick swipe at the surface, which other methods practices. The interview is not a regular conversation between two peers. The interviewer is the one making the questions and sets the structure of the interview, where the informant is left only to interpret and answer the questions. The balance of power that appears in an interview situation can leave the informants in a fragile state, and it is important for the interviewer to keep his eyes on the goal and to not disrespect or make the informant uncomfortable in any way.

Bogdan & Biklen (1998) distinguish between different types of qualitative interviews, depending on how they are structured, ranging from the structured interview on one side, and all the way to the unstructured interview on the other. These interviews are different in the sense that more structured interviews give less freedom to the informants when answering, whilst less structured interviews give the informant more latitude to dictate what he/she wants to talk about. The semi-structured form of the interview operates as a combination between the two before-mentioned forms, ensuring that the data one collects is comparable across subjects, but loses the opportunity to experience what topics and points the informant emphasizes. We chose a semi-structured form of the interview for our study, both for interviewing the pupils and for the teacher. The reasons for this choice were many. First of all we did not want a fully structured form of the interview because we felt that this would govern the conversation too much, leaving the informants with less latitude to be able to give an authentic view of his/her reality. Since we are partly looking for reasons behind their strategy usage, we needed to give the informants some space in order for us to achieve this sort of information. The structured interview also demands that the interviewer has a great amount of knowledge of the field that is being researched in order to develop adequate question. The fact that we have very limited experience as researchers makes this form of the interview less desirable for us to choose. On the other hand, we did not want a fully

unstructured form either, because we wanted to be able to control the topics to an extent and avoid collecting large quantities of unnecessary data. This would only result in more transcriptional and analytical work, and given our small time-frame, we did not want to waste any time. In addition, the unstructured interview consists of more open questions, which issues a demand for the interviewer to have good knowledge of the field in order to ask good follow-up questions, which again leads back to our limited experience in the field of research.

#### **3.4.4 Conducting the interviews**

We developed interview guides (appendix 2 and 3) for all three of the interviews, one exclusively for the teacher interview and one for both of the focus group interviews.

According to Christoffersen & Johannessen (2012), semi-structured interviews are usually based on interview guides, which they describe as “a list of topics and general questions which will be looked at during the course of the interview” [ourtransl.] (Christoffersen & Johannessen, 2012:79). In other words, the interview guide functions as a plan that directs the interview in specific directions, helps the interviewer/s to stay on focus and makes sure that the predetermined topics and questions are being discussed during the interview. The main reason for the development of interview guides in our study were the fact that we concluded that it would be beneficial for us to have a predetermined structural plan that we could follow and fall back on if we lost focus during the interview. This was our first major research project, and given our inexperience in the matter, we felt that a interview guide would be beneficial. We divided our interview guides into categories, which consisted of different questions related to the specific category. We also formulated possible answers and follow-up questions so that we were prepared for the different directions the interview might take.

It was important for us that the informants felt safe and comfortable with the interviews and the aspects related to them. Both the interview with the teacher and with the focus group were held in their own school. This decision was based on our assumptions that the informants would feel more at ease in the comfort of their own school. We felt that by conducting the interviews in a safe and familiar setting, the informants would be better suited for giving more reflective answers to our questions. Equal to the questionnaire, the interviews were all held in Norwegian. We felt that by pressuring the informants into speaking English, the informants’ could very likely become too self-aware of their own speech and care less about the quality and the content of their answers. Based on the fact that the informants were all Norwegian, we presumed that they would be more comfortable talking in their native tongue, which would lead to better articulated and more authentic answers. The focus group interviews were also

held in pairs, much for the same reasons as stated above. We felt that conducting the interviews in pairs would make the whole scenario less intimidating for the pupils, and that they would benefit from having a class mate for support.

Each interview was recorded by using a tape-recorder. By recording the interviews, it made it easier for us to give our full and unhindered attention to the informants, as we then avoided spending time writing down every single important point made. As we were able to fully concentrate on the informants and what they were saying, it was easier for us to construe and ask good follow-up questions. In retrospective, the tape recorder also gave us the opportunity to go back to different stages of the interview to explore and establish what was said, in addition to making it easier for us to analyze the content of meaning, as we had the whole interview on tape.

### **3.4.5 Transcription**

After concluding the interviews, the interview material was transferred to a personal computer, transcribed into a written format and then deleted from the tape recorder. When we transcribed the interviews, we did not rewrite their utterances into the official language of Norwegian (bokmål), but rather kept their dialects. The reason for this is because we noticed that some of the meaning connected to their utterances disappeared when we translated them. However, when we present our findings later on in the paper, the results from both the interviews and the questionnaire will be presented in English, because we feel that putting in Norwegian utterances and statements will ruin the flow of the paper.

### **3.6 Reliability**

Reliability in a research context is connected with how reliable the results that is gathered from the research methods are. Kumar (1999) states that the term is centered on the question of to what degree a research tool is “consistent and stable, and hence, predictable and accurate” (Kumar, 1999:140). Kvale and Brinkmann (2012) explains that reliability speaks of how consistent and credible the results that is gathered through the specific research methods are and if other researchers can reproduce these results. We detect that there are several constraints in our study that could jeopardize the reliability of our research, and we will point to the most important ones here.

The first constraint of our study that we would like to highlight is that the results from our interviews are hardly generalizable. This is because of that our interviews only consisted of a few samples. Five informants is on the lower edge of what is expected for being able to

transfer the results onto a whole population. What we are able to do, is recognize tendencies from these samples which may give valuable insight in the area. The questionnaire results, however, are transferable because of the fact that a whole class (minus a few pupils) participated. The question is to what population the results are transferable to, as the number of samples are still insufficient in order for the results to highlight anything about a population as big as the generality of the pupils in Norway, for example. Seeing as the class that participated in the questionnaire was from a lower secondary school, one could argue that the results might be transferable to the rest of the classes at that school, but not to other schools.

Another point to make is regarding Kvale and Brinkmann's (2012) point about reproduction. As we have made a descriptive account of our work with the interview guides (which is attached to this paper as an appendix for anyone to inspect), the questionnaire (which also is attached as an appendix to this paper) and the informants, it would be possible for other researchers to replicate our interview guide and conduct interviews based on this replicate, as well as choose a selection of informants that is similar to ours. However, there is no reliable way of knowing how other researchers will interpret the results that is gained from the different methods, and if it would concur with our interpretations.

As the interviews and the interview guides, the questionnaire is made visible through attaching the material to this paper, it is possible at any given time for other researchers (or others) to enter our material and verify its reliability.

### **3.7 Validity**

Kumar (1999) states that "Validity is the ability of an instrument to measure what it is designed to measure" (Kumar, 1999:137) This concurs with the definition of validity described by Kvale and Birkmann (2012), except that the latter authors use the term *method* instead of *instrument*, the former being the term that we use in this paper. Validity revolves around to what degree the methods that are used are making it possible for the researcher to answer the research question and to what degree the results are representative for reality. However, Kvale and Brinkmann (2012) furthers their explanation by stating that validity does not only deal with the methods in use, but also the researcher's personal qualities, including his or her moral integrity. The authors also emphasizes that validation does not only grasp specific parts of the research, but the whole process.

In our study, we feel that the methods that we have used has made it possible for us to answer our research question. In addition, we have substantiated our findings with relevant theory which helps validate this paper. All the material used and collected in our study is visible, which gives the reader the opportunity to validate and verify the coherence between the research question, the methods and the findings gathered from the methods. We have also described and made justifications for the choices we have made during our research process, which also gives the reader the opportunity to evaluate what we have done.

In retrospective, we see that there are several choices that could have been made differently. It is easy to see the flaws in our study from the rear-view window, but we have made our choices as valid as possible based on our precognitions and what we knew in the different parts of the process.

In order to get answers with a firmer grip in reality, we have collected data from different sources to answer the same research question, and we have formulated the research question in such a way that it is possible to answer it. By using citations, we have conveyed the pupils' and the teacher's utterances in a way that portrays them as authentic as possible and which enables the ability of verification from the readers.

### **3.8 Ethical and methodical challenges**

To take the role as a researcher can be complicated. Christoffersen & Johannessen mentions the ethical and juridical responsibilities that you must consider as a researcher. Sensitive information should be dealt with in a professional manner. "If one is to collect and process personal/sensitive information, one must consider whether they are notifiable by law, possibly licensable" [our transl.] (Christoffersen & Johannessen, 2012:43). If the data you plan to collect contains personal information, it is required by law that you send an application to the Data Protection Official for Research (Personvernombudet) at the Norwegian Social Science Data Services (Norsk Samfunnsvitenskapelig Datatjeneste AS). Personal information is data that can be tracked back to or reveal the identity of the informant. We had no intention to collect sensitive information about the participants or to cause them any harm. We did therefore not store any personal information during our field study, only recordings of the interviews and the results of the questionnaire, which was destroyed when they were of no longer of use to us.

We greatly respected the participant-researcher confidentiality. However, we became aware of the possibility of collecting sensitive information unintentionally. In order to prevent this from happening, we constructed interview guides so we were able to control the discussions to some degree and not go off topic. We also sent an application to the Data Protection Official for Research. They responded that they could not see that any personal information could be collected through the methods we intended to use, therefore no approval from them were necessary.

Kumar (1999) mentions that there are three stakeholders in a research activity and it is critical to look at the ethical challenges in relation to these three:

- The participants/subjects
- The researcher
- The funding body

(Kumar, 1999:191).

The first stakeholder is the participants, which in our study would be 20 pupils in the 10<sup>th</sup> grade at a local school in Tromsø and their English teacher. These participants provided information for our research study and assisted us in understanding the phenomenon we were investigating. The second stakeholder is the researcher, in our case the two of us. By conducting research we must abide by the code of conduct and be represent our academic discipline in a fashionable manner. The final category of shareholders is the funding body. Many studies are funded by organisations, businesses, government, institutions etc. Funding of projects and studies may affect the research and how the final reports are written since funders may have direct or indirect control of the study. We have received no funding towards our project. We are driven by our own personal motivation and curiosity towards this field of interest, and the desire to gain further insight in Norwegian pupils' mind-set in order to become better English teachers.

Kumar also mentions the ethical issues relating the researchers, which we will take into consideration. Researchers must remember to avoid bias, which is to exclude findings from your study or to exaggerate something of its true existence (Kumar, 1999). It is also unethical to use an improper methodology, using unnecessary methods, making false conclusions and to alter results in order to favour your own or someone else's study.

We chose not to observe any English lessons or to conduct any lessons ourselves. The reason behind these compromises was because we felt that this was too time consuming, and it would be difficult to measure any long time effects. From personal experiences, we have noticed that pupils are fond of changes and new younger teachers. It would therefore not be beneficial towards our study for us to take part in lessons since we would not know if the outcome would stay the same after we had left.

## 4. Results

In this chapter we will present the results that were gathered from our research methods. We will present the results in the same succession as we conducted our method. We will start with presenting the results from the teacher interview, then move on the questionnaire and then finish up with the results from the focus group, which is the interview with the boys and the interview with the girls.

### 4.1 Interview with Teacher

The teacher we interviewed is a Norwegian woman. She has worked as a teacher for over 30 years, starting in the late 70's, and has been working at her current school almost through her entire career. Yet, she did not start teaching English until several years into her teaching career, her reasoning being that "she did not want to ruin the love she had for the English language". However, in retrospective, she claims to have found this fear to be unnecessary, as her love for the language is as vigorous today as it was over 30 years ago. She describes her class as above average in the subject of English, and that their skills often become clear when they have oral presentations, often resulting in a great percentage of the class getting grades of 5 or higher. She also explains that there are some differences in the English proficiency level in her class, as is common in every class, ranging from very strong pupils to pupils not daring to speak English in front of the class, and everything in between.

#### 4.1.1 Vocabulary

The teacher recognizes the importance of vocabulary development among her pupils and explains that vocabulary is a prime focus in her English teaching:

Teacher: It is very important (vocabulary); otherwise, I would not include it as one of the main aims when starting on a new topic. Then it is on the blackboard: remember expanding your vocabulary! Yes. Vocabulary is *the* tool needed for the pupils to be able to write at all.

The teacher explains that vocabulary learning and development is one of the main competence aims in her teaching, and that she always reminds her pupils of the importance of this when starting new topics. Listing vocabulary development as one of the main aims shows that vocabulary has a strong position in the teacher's language teaching and in the pupil's language learning. Her remark on vocabulary being *the* tool needed for writing indicates that in her view, it is close to impossible to develop writing skills if vocabulary learning is neglected.

The teacher furthers her explanation:

Teacher: The pupils need the right vocabulary in accordance to the topic. Otherwise, they will just repeat themselves and remain on the same skill level.

She also emphasizes that vocabulary acquisition is more than just translating words, and exemplifies this with how she evaluates the pupils' scores on her glossary tests:

Teacher: To gain a high score percentage (...) one must be able to translate the words from Norwegian to English (...) use them in adequate sentences and describe/define the words.

The teacher recognizes that there are more aspects of word acquisition than just knowing what a word means, as she also expects her pupils to be able to define or describe what the words mean in their own words and use them in their own sentences. This shows that the teacher distinguishes between a passive and an active vocabulary, as the ability to use the words after one has learned them is a focal point in her teaching. Pupils incapable of using newly acquired words in the production of sentences will have a hard time conveying meaning within specific topics if the words are of cultural or thematic importance.

#### **4.1.2 Dictionaries**

According to the teacher, paper dictionaries are available for the pupils as an aid in their English subject. Several bilingual (English-Norwegian) dictionaries are stationed in one of the cabinets in their classroom, and she always brings a monolingual English-English dictionary named *Advanced Learner's Dictionary* to each lesson. We asked the teacher whether the pupils actually used these paper dictionaries:

Teacher: No. Previously we used to bring class sets of paper dictionaries to the lessons, but after the pupils started writing on computers and using Ifinger and Clue and things like that... No, paper dictionaries are not that important anymore.

The teacher explains that there has been a decrease in the usage of the paper dictionary among the pupils following the introduction of computers in the classroom. The computer provides new arenas for language learning, and programs like Ifinger and Clue (offline digital dictionaries) are being employed at the expense of their printed predecessors, paving way for a more digitalized atmosphere within the classroom.

### 4.1.3 Digital strategies

After establishing that the pupils prefer using digitalized strategies when looking up words, we asked the teacher which strategies that were most prevalent amongst her pupils:

Teacher: The pupils with grades of 3's and 4's use Google Translate. Yes. The pupils with the grades of 2 or less does not bother with that either.

Interviewer: Okey. What about the stronger pupils?

Teacher: The case with the stronger pupils is that they will have a feeling about what the word means, but are uncertain of its spelling. Then they will often consult with Google Translate in order to confirm or invalidate their notion.

The teacher explains that the pupils with a mediocre proficiency in the subject use Google Translate, and that the stronger pupils use this tool, although in a more confirmatory fashion. As for the less proficient pupils, the teacher reveals little more than that they do not *even* bother with Google Translate. According to this teacher, the pupils with a mediocre proficiency level use Google Translate with a more servile attitude, whilst the stronger pupils, having more developed linguistic skills, are able to recognize if the translations or definitions are imprecise.

Establishing Google Translate as a popular tool, we asked the teacher her thoughts on why the pupils find this specific tool so favorable:

Teacher: To them it bears meaning getting a whole sentence translated. Because they do not think in English. They have yet to figure out that the English language is like music, with a distinct rhythm... (...) They have yet to draw the conclusion that reading and watching English movies will bring them much further in their proficiency in the English language. For them, Google Translate is fast and effective.

This statement refers to the mediocre proficient pupils, which is evident through her explanation that these pupils have yet to develop a fundamental understanding. In her opinion, pupils can find Google Translate to be beneficial since it can translate full sentences from one language to another. However, they have problems distinguishing the quality of such translations. She also highlights speed and effectivity to be important aspects of Google Translate, which her pupils relate to.

The teacher explains that she also observes a trend among the pupils of using words and sentences that they clearly do not understand:

Teacher: I see that a considerable amount of the pupils are using words of a higher proficiency level than what they in reality are capable of mastering. They have encountered the word and understand that it is advanced and fit their text, but at the same time ending up with having a limited comprehension of what they have actually written.

According to this teacher, then, a large pool of the pupils is using digital strategies, such as Google Translate, in which they are not fully able to master. The pupils are producing texts with words and sentences that the teacher exposes as directly translated through a digital tool or consisting of words that are too advanced for the pupils proficiency level.

## **4.2 Questionnaire**

The questionnaire given to the pupils was intended to give us the general patterns of their look-up strategies in order to find translations and word definitions in English. The questionnaire consisted of three parts; *school*, *home/spare time* and *reliability*. The aim was to determine which look-up strategies pupils prefer to use, whether they used different strategies at school and during their spare time, and how reliable they found these strategies. We felt that the twelve questions we created covered these areas sufficiently. However, the results were also discussed in the focus group interviews in order to solve any issues or questions that might have emerged after the questionnaire was conducted, and to get a deeper understanding of the attitudes and perceptions behind their answers.

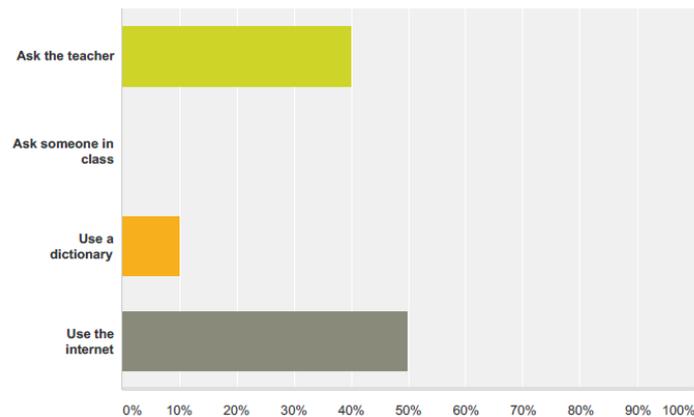
Both of us were present when the participants answered the questionnaire, in case there were any doubts or questions directed towards the study or questionnaire. In order to avoid unforeseen technical problems, we decided to hand out the questionnaire form in print and let the pupils answer in pen or pencil.

Only the questions that showed interesting results and important findings towards our thesis will be treated. The questionnaire results are also attaches (appendix 4).

## 4.2.1 Questionnaire results

### Q1 What do you usually do when you need to translate or find the meaning of an English word in English class at school?

Besvart: 20 Hoppet over: 0



The pupils were asked which strategies they use at school when finding translations and word definitions in the English subject (Question 1). Ten of the participants (50%) answered that they usually use the Internet, while eight (40%) said that they prefer asking their teacher. Only two pupils (10%) answered that they use paper dictionaries in order to translate or find definitions during English lessons.

This shows that half of the participants favour digital look-up strategies when in need of finding translations and word definitions during school hours. Only these participants were eligible to answer the next question (the remaining participants had to skip it), which was to specify which website or application they use in order to find translations and English word definitions (Question 2). Even though we received ten comments, they were all very similar to each other. Here are some examples:

- *Google Translate.*
- *I usually use Google Translate, a website to find translations*
- *I Google it*
- *Google*
- *I Google the word to find the Norwegian word*
- *Google Translate or Google Search Engine*

The answers given were rather homogenous. Google and Google Translate seem to be the dominant strategies. All of the replies involved either one of these two strategies, or both.

Focusing on the Google Search Engine, we assume that what the pupils mean is the act of typing in the word in the search engine and clicking on one of the top results involving a definition or an explanation of the word. We also assume that the pupils that simply answered *google*, mean exactly this.

Considering that Google Translate is a service provided by Google, it is likely that this contributes to its popularity. It is easily accessible, showcased just above the results in the Google result page, and thus likely to draw attention to itself.

After we established what kind of strategies the pupils’ use, we asked them *why* they use their specific strategy (Question 3). The pupils then had to arrange five different alternatives in order of importance:

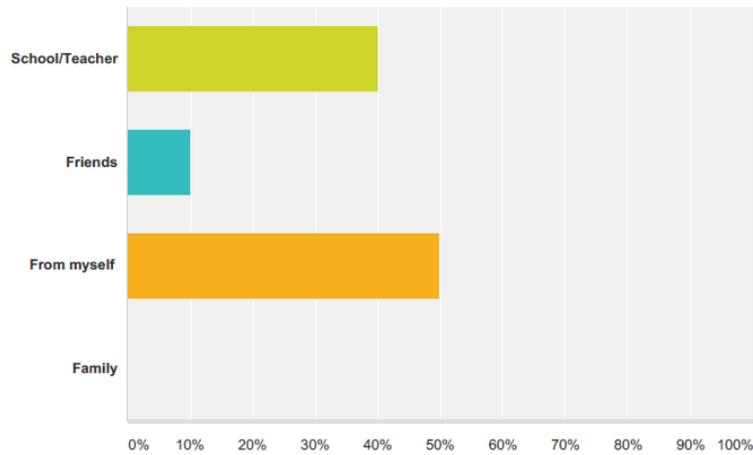
	1	2	3	4	5	Totalt	Poengsum
Fast	35,00% 7	25,00% 5	10,00% 2	15,00% 3	15,00% 3	20	3,50
Easy	25,00% 5	20,00% 4	25,00% 5	25,00% 5	5,00% 1	20	3,35
It is how I learned to do it	0,00% 0	15,00% 3	10,00% 2	10,00% 2	65,00% 13	20	1,75
It gives the best result	35,00% 7	30,00% 6	25,00% 5	5,00% 1	5,00% 1	20	3,85
It is how I am used to do it	5,00% 1	10,00% 2	30,00% 6	45,00% 9	10,00% 2	20	2,55

As we can read from the table, we see that *fast* and *it gives the best result* are the alternatives that has been ranked as the number one reason by most of the pupils, while *easy* comes third in the ranks. An additional interesting notion is that the alternatives *it is how I learned to do it* and *it is how i am used to do it* (sic. it is how I am used to doing it) is not ranked highly until the third column, indicating that a habitual justification for their choice of strategy falls short under the light of these results.

When asked where they had learned their preferred look-up strategy (Question 4), ten (50%) answered that it was self-obtained, eight said (40%) that they had learned this strategy at the school or from their teacher, while only two answered (10%) from their friends. None of the participants claimed that their family have had an impact on their choice of look-up strategies.

#### Q4 Where did you learn this strategy?

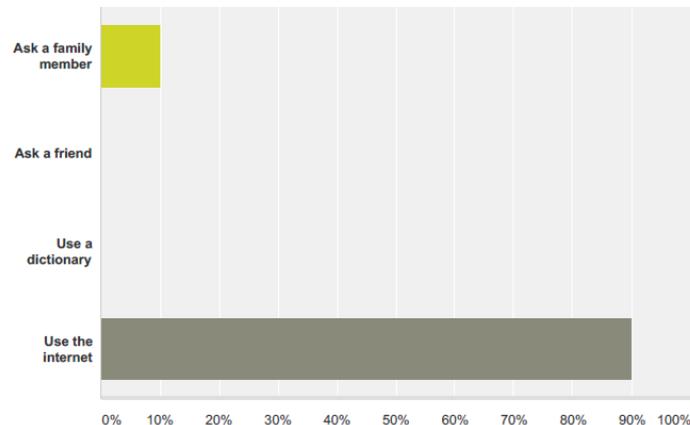
Besvart: 20 Hoppet over: 0



By focusing on the 50 % that answered that they have acquired this strategy by themselves, we could substantiate our assumptions from our previous argument that popularity and accessibility might be a reason for the increasing usage of Google and Google Translate.

#### Q5 What do you usually do when you need to translate or find the meaning of an English word in your spare-time?

Besvart: 20 Hoppet over: 0



In the second part of the questionnaire, we moved our focus away from schools in order to explore if pupils use different look-up strategies during their spare time than in the classrooms. Question 5 was very similar to the first question of the questionnaire, however now we asked the participants to state what they usually do when they need to translate or find an English word definition during their spare time. The majority (90%) answered that they prefer using the Internet. Only two (10%) said that they normally ask a family member. Later on, these two commented that they had parents or other relatives who were native speakers of the English language. The usage of the Internet for finding word translations and

definitions increased with a 40 % margin in their spare-time compared with the usage in school (from 50% to 90%).

The next question of the questionnaire was a follow-up question directed towards the 90% who stated that they prefer using the Internet as their look-up strategy during their spare time. Once again, they were asked to write down the specific website and applications they use in order to find translations or definitions of words in, but now focusing on their spare-time (Question 6). We expected many different answers since 18 pupils were eligible to answer it. Out of 18 answers, the pupils named only three different digital sources: *Google Translate*, *Google Search Engine* and *TriTrans*. Here are some examples of the answers given by the pupils:

- *Google Translate*
- *I usually use Google*
- *I Google it*
- *I check Google's top results*
- *Google Translate or TriTrans*

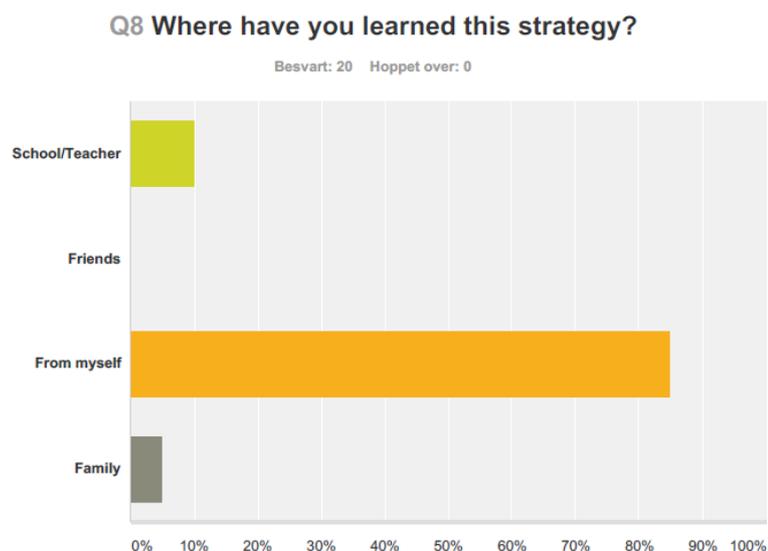
The answers we received to this question correlate with the answers received from question 2 (Which website or application the pupils use to find translations or definitions of words *in school*) in our questionnaire. Google and Google Translate is still the dominant strategy used by the pupils after transitioning the area of focus over to their spare time. The only discrepancy shown between the answers of question 2 and question 6 is that one pupil mentions *TriTrans* as one of his/her preferred strategies (the other one being Google Translate).

As in the previous part, we asked the pupils *why* they use their specific strategy, again having to arrange the same five alternatives in order of importance (Question 7):

	1	2	3	4	5	Totalt	Poengsum
Fast	60,00% 12	15,00% 3	10,00% 2	10,00% 2	5,00% 1	20	4,15
Easy	10,00% 2	45,00% 9	35,00% 7	5,00% 1	5,00% 1	20	3,50
It is how I learned to do it	0,00% 0	10,00% 2	5,00% 1	20,00% 4	65,00% 13	20	1,60
Gives the best result	25,00% 5	30,00% 6	15,00% 3	20,00% 4	10,00% 2	20	3,40
It is how I am used to do it	5,00% 1	0,00% 0	35,00% 7	45,00% 9	15,00% 3	20	2,35

From these numbers we see that *fast* is the more dominant alternative and the pupils' most emphasized feature in their strategy and by a large margin as well. 12 pupils (60 %) ranked

this alternative as the most important one, followed by *gives the best result* that was chosen by 5 pupils (25 %). This shows that in the pupils' spare time, there is a larger emphasis on speed and how quickly they can get results, and less emphasis on the actual quality of the results. We can also note that simplicity, with the alternative *easy*, also has a dominant role in the second column, indicating that the pupils also favour that their strategies are easily manageable.



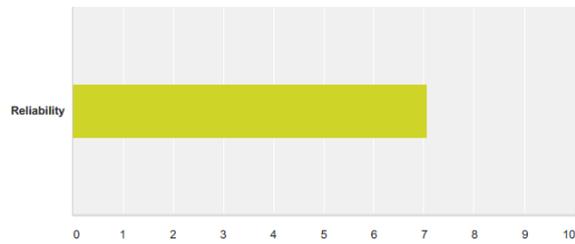
The pupils were asked to state where they have acquired the look-up strategy in which they prefer using in their spare-time (Question 8). 17 answered (85%) that it was self-obtained. Two pupils (10%) said they had learned the strategy from the school or a teacher. One participant (5%) stated that a he/she had learned it from a family member.

In the last part of the questionnaire we wanted to shed some light on the pupils' perception of the quality and reliability of the results given by digital tools and sources, in addition to the important question of *why* they use their specific strategies.

On the next question, the pupils were given the task to rate the reliability of websites and digital tools they use to translate and find English word definitions (Question 10).

**Q10 On a scale from 1 to 10 (where 1 is "not reliable at all" and 10 is "always reliable") how reliable do you find websites and digital tools when finding translations and meanings of English words?**

Besvart: 20 Hoppet over: 0

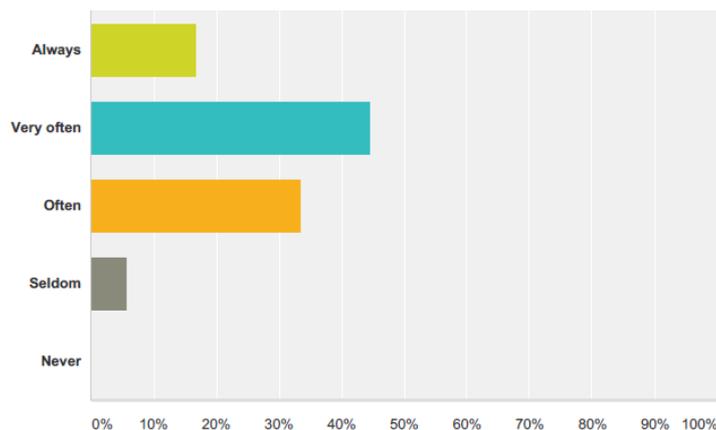


	1	2	3	4	5	6	7	8	9	10	Totalt	Vektet gjennomsnitt
Reliability	0,00% 0	0,00% 0	5,00% 1	0,00% 0	10,00% 2	10,00% 2	35,00% 7	30,00% 6	5,00% 1	5,00% 1	20	7,05

On a scale of one to ten, where one was considered “not reliable at all” and ten “always reliable”, the average score of the class was seven. None of the participants found these tools to be unreliable (1-2). One participant answered 3, which was the lowest rating given. The highest rating given was 10, also by only one participant. Seven pupils rated 7 and six others rated 8. A total of 15 participants (75%) found these websites and digital tools to be very reliable (7-10), while the remaining five (25%) found it to be partly reliable or very unreliable (3-6).

**Q12 How often are you satisfied with the results you get when using the internet and digital tools to find translations and definitions of English words?**

Besvart: 18 Hoppet over: 2



The second to last question was based on whether or not the participants find the results satisfying when they use the Internet and digital tools to translate and look for English word definitions (Question 12). For some reason, only 18 of the 20 participants answered this question, which is why the percentages representing their answers look different than in the

previous questions. Three pupils answered “always” (16, 7%), eight said “very often” (44, 4%), six answered “often” (33, 3%) and one participant said “seldom” (5, 56%). None answered “never”. After answering this question, the participants were asked to state the reason for why they find the results satisfying or not (Question 13). The pupils wrote many interesting comments, here are the ones we found the most intriguing:

- *Because it often gives you the right translation and it is simple to use*
- *I am often happy with the results, but sometimes it is hard to understand what Google Translate means.*
- *I check with several websites, and usually get a good answer since it is based on multiple sites.*
- *It is fast, simple and works fine*
- *I often get the wrong translation which can affect my work.*
- *I usually get the translation that I am looking for since the Internet is so extensive with a lot of information*
- *The Internet is almost perfect but you can only find the meaning of the word, rarely how to use it. That is why I call a family member to find out just to be sure.*
- *Well, it is quick but sometimes the translation is really bad. So it is OK.*
- *It rarely pays off on hand-in assignments.*

The pupils’ answers are mixed, ranging from positive statements about Google Translate to somewhat more negative statements. One tendency that we pick up from these statements is that the translations from Google Translate are not always correct.

Another tendency we detect is that the pupils confer to other websites in addition to Google Translate in order to verify if the results they get in Google Translate are correct or incorrect.

### **4.3 Focus group - Interviews with the pupils**

The participants for the focus group were handpicked by us and the teacher we cooperated with during the study. We selected two males and two females. These specific pupils were chosen because the teacher regarded them as active pupils who could contribute with detailed and descriptive answers towards our question. The class had been given the task to prepare for a presentation the day we conducted these interviews. We had originally wanted to interview pupils with average test scores in English, but we do not know if this preference was carried

out since the teacher shared with us that the pupils with lesser advanced English skills needed more time preparing for presentations.

The participants in the focus group have been given new names in order to protect their real identities. The interviews will not be discussed in their full length, only the sections that we felt were the most beneficial towards our thesis.

#### **4.3.1 Harald and Håkon**

In the first interview we conducted with the focus group, we interviewed two male pupils, who we have given the names Harald and Håkon. Both pupils claim that they like the English language very much. In their spare time they use English when talking to international friends, family and communicating with people over the Internet through games, social media etc. Both pupils listed English as one of their favourite subjects.

#### **4.3.2 Vocabulary**

The pupils were asked about the importance of word acquisition and vocabulary learning in the English subject:

Harald: I try to keep account of all the words that means the same (synonyms).

George: The problem is that when you play online games, the easier your English is, the more people will understand. However, when it comes to other things, the more words and synonyms is often the best. Then you do not have to repeat yourself all the time.

Harald highlights synonyms as an important part of language communication, and Håkon complements this by stating that synonyms are important to avoid the risk of repeating oneself in sentences, averting that the language becomes too uniform.

Håkon adds a remark on online games (which both of the pupils occupy themselves with), saying that arenas such as these often call for a simple form of English in order for everyone involved to understand what is being communicated. He also mentions that grammaticality is also neglected to some degree when communicating in video games:

Håkon: In many occasions, I just write *U* instead of *you*, and they all understand it. Grammar is less valued when it comes to video games.

This marks a gap between the form of English that is emphasized in school, which is a more advanced and academic form of English, and the English that the pupils are exposed to and

articulate through video games; an opposite form of English than the former, emphasizing simplicity rather than articulacy.

### 4.3.3 Dictionaries

After gaining insight in the teacher's thoughts on paper dictionaries, we asked the pupils to shed some light on the topic:

Håkon: The paper dictionaries are rarely used. They are considered (by the pupils) old-fashioned and outdated, consisting of information that is not always correct.

Harald: Yes, we have gotten used to the Internet-way of searching up words.

Even though there are several paper dictionaries facilitated in the classroom at the pupils disposal, both Håkon and Harald agree that they are seldom used. Håkon states that the reason behind the dictionaries lack of presence is that they are considered *old-fashioned* and *outdated*, and Harald adds that they have grown more used to digital ways of looking up words.

### 4.3.4 Digital strategies

The following quotes are replies to the question of what the pupils do when faced with new English words that they have not encountered or heard of before:

Harald: Mm, I try to ask the teacher as much as possible when in school, but aside from that, I often use Google Translate. I use GT at home too, because my parents do not know as much English as I do, so I seldom ask them.

Håkon: When at home, I try to ask my dad, who is half-English, but if he is incapable of answering, I resort to Google.

Both Harald and Håkon use Google search engine and/or Google Translate to find definitions and translations of words. In school, this is the prevailing tool, except from asking the teacher. In their spare-time, both pupils use Google search engine and/or Google Translate, except from Håkon who prioritizes asking his father first. Even though both the pupils prioritize asking teacher/parents for help with words, it seems like they often fall back on Google Translate, and one could also assume that in assignments and tasks where the pupils work individually that Google Translate will be the favoured strategy. When the pupils are working with their computers, it is reasonable to believe that they then use these to access

Google/Google Translate. However, when computers are absent, they are allowed to use their mobile telephones for academic purposes, as shown by the following excerpt:

Harald: I can use my phone to search up words if I want to.

The computer is thus not the only platform in which the pupils use to execute their strategies. A smartphone is also an effective tool for quickly searching up words, arguably even faster than the computer because of its availability.

We then went on to ask the pupils their reasons for using Google/Google Translate as their main source for defining and translating words:

Håkon: It is fast and simple, but not the best when it comes to translating words, especially not sentences. Then you will have to be very specific and know when the sentences is wrong.

Harald: I agree; it is fast and simple, but at the same time not the most reliable source of translation.

Both pupils agree that the main reasons for using Google Translate is that it is quick and simple. The tool is easily accessed and easy to use, and at the same time it only takes a brief moment to get results. On the other hand, they also agree that this strategy is not the most reliable source for translating words or sentences, as it tends to make errors and mistakes, especially with whole sentences. Håkon explains that you need to be very precise and correct in your spelling to be able to gain the correct results; failing to do so might cause the engine to generate a completely different word or sentence than what you were looking for.

After stating the reasons for using Google Translate, we wanted to know where the pupils had learned this strategy:

Håkon: Well, my brother is a big fan of using google to find answers.

Harald: It started in primary school. The teachers informed us about different ways of searching for information, including Google Translate, and since then it has just stuck with us.

Håkon believes that he might have learned about Google Translate from his brother, but Harald explains that their teachers introduced them to the tool during primary school.

#### **4.3.5 Mari and Anne**

In the second interview with the focus group, we interviewed the two female pupils who we will give the names Mari and Anne. Both state that they are passionate towards the English

language. They find English important since it is the most common used language on the Internet and in the world. Anne uses English frequently to communicate with friends who do not speak Norwegian very well, while Mari regularly browses websites where English is needed to understand the content. Both state that English is not their favourite subject in school, but they enjoy it and think highly of their English teacher.

#### **4.3.6 Vocabulary**

When asked about the importance of learning new words in the English subject, the pupils reply:

Mari: I find (vocabulary) important because if you are going to learn (English), you must know the words in order to understand what you are talking about and stuff. So it is very important.

Anne: Well, it is important because if you are going to have a conversation with English speaking people, they will most likely use difficult words which you should know, also so are we (the pupils)...evaluated at a high skill level by the school. We should therefore have a more extensive vocabulary.

Mari emphasizes with the important role of vocabulary. She thinks learning the definitions of words are crucial in order to fully learn a language. She says you have to understand the words you choose to use, or the content might lose its significance. Anne points out that obtaining new words is essential if you come across native English speakers, since they will most likely use difficult words. She adds to the conversation that their school evaluates them on a high skill level, it is therefore important for them to develop their vocabulary further.

When asked how they learn and pick up new English words, the pupils reply:

Mari: The teacher often writes things on the blackboard. She asks us if we know what it means, than writes it down so we can see how it is written. Sometimes she makes us write it down ourselves in order to learn it.

Anne: Earlier we used to get handouts containing things we were going to learn about...What were the things we learning called again?

Mari informs us that the teacher often writes difficult words that they might encounter in texts and chapters on the blackboard. The teacher includes them in this process by asking them if anyone know their definitions and making them write the words down themselves. Anne says that they used to get handouts containing lists with difficult words and grammar explanations which could be used to develop their skills and practise for upcoming tests.

When asked where they think they improve their vocabulary the most, the participants reply:

Anne: ...At home. I am not usually one who does much work at school (laughs). So I do more at home. That is where I am able to find more words and where I can better develop my skills. Also, I have more time at home to read books and other literature.

Mari: I learn more at school, because I usually do not do much at home since I do not feel like doing things. The opposite of her (Anne). I work best at school.

Pupils learn differently. Anne and Mari show this through their statements. Anne develops her vocabulary more at home, while Mari cultivates it better at school. The two participants show that they work differently. Mari tries to finish most of her homework at school so she can use her free time on friends and activities, while Anne state that she is not that active during school lessons. However, she finds her spare time very rewarding towards developing her English skills. Anne mentions that she watches the TV news in English and often read English literature. When asked what they usually do when they come across new English words that they do not understand, the participant's answer:

*Anne: I translate it and listen to how it is pronounced.*

*Mari: I usually ask the teacher to help me with the definition when I am at school, but I use Google Translate to find it out for myself when I am at home.*

Mari admits that she uses digital look-up strategies, but prefers consulting with her teacher before she resorts to technology. Anne on the other hand, favours using digital look-up strategies (Google Translate) both during English lessons and her spare time. The questionnaire showed that this was the most common method for many of the participants. Many depend on their teacher to help them find translations and word definitions during the English lessons, while at home almost everyone turns to digital look-up strategies.

#### **4.3.7 Dictionaries**

After establishing the participants' understanding of vocabulary and how they develop it, we changed our focus towards dictionaries. The pupils were asked if they utilize any paper dictionaries and if they had any available to them during English lessons:

Mari: I think there are some in the cabinet...I am not sure (laughs)...Anyways, I have not seen any.

Anne: I use them rarely, but I never use one at home.

Mari and Anne confirm the teacher's statement that the popularity of paper dictionaries is decreasing and they are hardly ever used. Both explain that they rarely see any paper dictionaries being used by their classmates, giving the reason that it is very time-consuming to browse through one when you rather can ask the teacher or look up words on the Internet. The class do not have computers at their disposal in each English lesson, but they are allowed to use their smartphones and connect these to the school's network. Mari is not sure if there are any paper dictionaries located in the classroom, while Anne states that she seldom uses one. Neither mention that they know of the monolingual English-English dictionary that the teacher brings to each lesson. Mari tells us that the teacher and the school wish that they use paper dictionaries rather than digital ones.

#### **4.3.8 Digital strategies**

The participants were asked questions about how they prefer learning new English words, and what specific strategy they tend to use:

Mari: Mmm, Google Translate (laughs)

Anne: (laughs) me too.

Mari: Or...ask the teacher when I am at school. But at home...yeah.

Mari states that she prefers learning new words by using Google Translate, which Anne agrees with. Mari adds that this is more common during her spare time, but at school she prefers asking the teacher for help to learn the definitions of words she comes across. Mari uses different strategies at school than at home, while Anne uses digital strategies on a regular basis. Both are fond of Google Translate, but laugh when they mention this digital tool to us and they seem embarrassed about it. The next question we asked was why they prefer using Google Translate:

Anne: It is easy to use

Interviewers: Easy?

Anne: Yes

Interviewers: What about you?

Mari: I agree

It was difficult to get a more detailed answer for why they use Google Translate. We did not want to pressure them to give more details, since it might make their answers less genuine. We felt that the girls were a bit shy throughout the entire interview, and were not as talkative as the two previous participants. Anne and Mari explain further that they have learned to use Google Translate by themselves, and like using it because their friends tend to use it as well. We asked them to describe what Google Translate is, as if they were explaining it to a person who had no knowledge of this digital tool:

Anne: Well, it is something you can use to translate words into different languages. The result is not always acceptable. Actually, it gives bad translations. I usually double check the translation with other web sites, just to be sure. I also speak several languages, so I tend to translate words into the languages I know to check if the translation is adequate.

Interviewers: So if you were to describe Google Translate to a person who did not know what it is, you would say it is unreliable and the translations are not always acceptable?

Anne: Yes.

The pupils prefer digital look-up strategies, specifically Google Search Engine and Google Translate. However, when asked to describe this digital tool, they specify that it often provides inaccurate translations. Why do they still use it, when knowing that it is unreliable? This will be discussed in the next chapter, along with the other results we found intriguing.

## **5. Discussion**

In this chapter we will discuss the results of our study and examine the look-up strategies the participants use in order to find translations and definitions in the English subject. We will connect these findings with previous research and the theoretical framework that was presented in chapter 2.

### **5.1 Look-up strategies**

Our results show that the pupils prefer using digital look-up strategies, the most dominant ones being Google Translate and Google Search Engine. It seems as if the popular phrase “just google it” has found its way into the pupils’ educational sphere as well. Google seem to be the commanding strategy for the contemporary generation when needing answers and this looks to be the case in the context of the English subject as well. This complies with the teacher’s impression that Google Translate is the pupils’ main source of finding translations and definitions. Similar results were also found in Langedard’s (2011) study, where the results showed that the pupils preferred digital dictionaries to paper dictionaries, but also that Google Translate was commonly used by the pupils. The interview with the teacher and the interviews with the focus group showed that the pupils did seldom use the paper dictionaries that were stationed in their classroom. The focus group explained that they considered the paper dictionaries as old-fashioned and outdated. An interesting question is why the pupils consider the paper dictionary as inferior to new and modern practices. It is difficult to believe that the pupils have the competence to evaluate the quality of printed dictionaries, which leaves us with the assumption that this impression is solely based on the fact that the paper dictionary is an old phenomena, thus making it inferior to digitalized dictionaries and tools, which in comparison is new.

We find it interesting that Google Translate has such a dominant role in the pupils’ schoolwork. The questionnaire shows that the pupils’ find Google Translate reliable to some degree, rating its reliability as a 7 in a scale of 1-10. However, the informants stated through the interviews that Google Translate was not always reliable, especially not when whole sentences were translated, and that there are sources that are more reliable than Google Translate is. If the degree of reliability of the results produced in Google Translate is unstable, why are the pupils using this strategy then?

## 5.2 Why do the pupils use their specific strategies?

Both the interviews with the focus group and the questionnaire indicates that the pupils prefer using their strategies, namely Google Translate, because that they were fast and simple to use. These findings are similar to both Langegard's (2011) and Blikstad-Balas and Hvistendahl's (2013) study. Question 3 in the questionnaire regarding why they use their specific strategies *in school* shows that the main reason for using Google Translate is because it is fast and that it gives the best result. However, question 7 regarding why they use their specific strategies in their *spare time* shows that there is a larger emphasis on the alternative *fast* (60 %) compared to the alternative *it gives the best result* (25 %). This shows that the reasoning behind the usage of Google Translate differs from which context it is used. When using it in school, there is a larger emphasis on quality compared to when it is used outside of school. The most obvious explanation for this is that the pupils are using Google Translate more for non-educational purposes when in their spare time and more for educational purposes when they are at school.

An additional interesting point is the notion that pupils have gotten *used to* the Internet-way of searching for words. This indicates a transition from paper dictionaries to digital dictionaries and tools based on habitual reasons: the pupils' every-day life has gotten more and more influenced by technology, and as they have grown accustomed to a more digitalized lifestyle, they are drawn towards new digital landscapes and away from their old habits (e.g. paper dictionaries). It is likely to believe that familiarity in digital sources has an appealing effect on young learners. These assumptions lead us to believe that the transition to digital sources was not a conscious choice made by the pupils, but more of a natural changeover that just occurred. However, the questionnaire shows that the alternatives *it is how I learned to do it* and *it is how I am used to do it is* are not ranked highly until the third column, indicating that a habitual justification for their choice of strategy falls short under the light of these result.

Another point to make is that the teacher allows for the smart phone to be used for academic purposes in the classroom, which can act as a reinforcement for the pupils' choice of digitalizing their strategies, seeing that the smart phone is a contiguous tool in the pupils' lives and a tool that they are exceedingly familiar with and knows how to operate. One could argue that the pupils would opt for devices that are familiar to them and that they have experience with, and this might be a part of the reason why the pupils emphasizes the use of

digital strategies in their learning environments; because they are so easily accessible on their smart phone.

### **5.3 How were the strategies obtained?**

In order to understand where the strategies are learned, we must consider which strategies they use both at school and at home. At school, 40% of the participants prefer asking their teacher to help them with finding translations and English word definitions, while 50% favors using the Internet. When it comes to where they have learned to use these strategies, 50% say it is self-obtained, while 40% of the participants say they have learned to use their strategy from their teacher/school. One might assume that the ones who follow the teacher's or school's encouragement are the same ones that prefer consulting their educator when finding translations and definitions. However, this is not the case. Harald tells us during the focus group interview that he learned to use both Google and Google Translate from a teacher when he attended primary school. It is likely that some of the other participants also come from the same primary school as Harald, which can indicate that at least a few of the participants were introduced and trained by educators to use Google and Google Translate.

85% of the participants also state that the strategy they prefer using at home was self-obtained. It is intriguing to see that so many have learned to use a strategy on their own or have developed it by themselves. What is it that has affected so many to do this? Since the majority of the pupils use digital look-up strategies during their spare time (mainly Google and Google Translate), we believe that one reason might be because of their popularity. People tend to reconcile with what is most commonly used by others, believing that the most frequently used websites, are the most reliable (why else would so many people use them?). Google is after all one of the most popular websites in the world. However, it is a questionable search engine. Google lists search results by number of visits, not by reliability. Also, Google Translate will automatically appear if the search phrase consists of words such as "translate" or "translation" when using Google, even though there are other translations tools available on the Internet which provides more correct translations (such as [translate.reference.com](http://translate.reference.com)).

Other reasons for why pupils have become fond of using digital look-up strategies during their spare time might be because of accessibility. The Internet and technology play a bigger part in the pupils' every-day life, compared to what it does in schools. Since they are

accustomed to use and being surrounded by technology, it might feel rational to consult it in such tasks.

We have now established that many pupils have developed and taught themselves the look-up strategies they favor using both at school and at home. Only one participant answered that his/her family had been an influence on his/her preference on look-up strategies. The reason for families' lack of assistance in this matter will only be speculations, but issues such as the parents' proficiency level in the English language could very likely be the factor for why so few have had an impact on their children's look-up strategy preference. In addition, parents might put their trust in educators and schools regarding the issue, since they know more about which strategies are more beneficial to such tasks.

#### **5.4 Evaluating the strategies**

Are pupils able to evaluate their preferred strategies? Look-up strategies should promote vocabulary acquisition and produce reliable results. However, it seems as if these aspects are not a priority among the participants since they use digital tools such as Google Translate. The teacher states in the interview that she believes that some pupils, especially those with a mediocre or lower proficiency skill level, use GT because of the fact that it is fast and able to translate full sentences. She explains that these pupils do not fully understand the several aspects of the English language; they are incapable of knowing if the sentence is grammatically accurate and if the words in a sentence are correctly used in accordance with the context. As Cook (2001) points out, these disciplines (forms of the word, grammatical properties, word combinations and meaning) are essential in order to achieve vocabulary acquisition. If one or several aspects are neglected, it can constrain them from developing an adequate vocabulary. It could seem as pupils with mediocre and lower proficiency skills put too much faith in a digital tool which is too imperfect to function as an essentiality in their language learning. It can result in misleading and confusing translations and definitions, which might hinder the pupils' vocabulary development more than it will assist it. As explained by Drew and Sørheim (2009), vocabulary is an essential part of learning a second language. If the pupils use a look-up strategy that produces results with mixed qualities, this might not only effect their vocabulary, but also their second language learning as a whole.

The teacher points out that she often sees that some pupils use words of a higher proficiency level than they are truly capable of. This again shows that speed and effectivity are important aspects among the pupils. It might also indicate that pupils put too much trust in Google and

Google Translate, unaware of their weaknesses and unable to consult with other sources. The ability to evaluate the reliability of digital tools, use them correctly and critical assessment are some of the vital skills that both Erstad (2010), Krumsvik (2007) and the Knowledge Promotion (LK-06) finds important towards being digital competent. It seems as if some of the participants, especially those with mediocre or a lesser proficiency level lack these skills to some degree, since the reliability of Google and Google Translate received an average score of 7. This also contradicts Prensky's (2001, 2010) theory that today's pupils have superior digital skills than previous generations, and should rather be left to themselves to explore the Internet than learn from educators. They might be able to utilize different digital tools, but they lack essential skills in order to use them sufficiently. The assumption that some of the pupils comes a bit short when it comes to critical assessment and the ability to evaluate reliability complies with Li Jin's (2013) study. She explains that even if young learners are capable of locating a tool's strengths and weaknesses, there is no guarantee that they are able to evaluate the quality of the results, and especially not pupils with lower proficiency levels. This could very well be the case with several of the pupils in our study. Andreas Lund (2007) claims that the ambitious and detailed descriptions of digital skills in the Knowledge Promotion are recognized in the competence aims for the English subject. With this in mind, one could ask to what degree teachers emphasize the importance of critical assessment. If the Knowledge Promotion fails to reflect the importance of digital skills in the competence aims, and for this reason, the teacher also neglects the aspect of critical assessment, it is well warranted to believe that this would affect the pupils in a negative sense. Although this is just speculations, it is an important question to ask.

In the focus group interviews, both the boys and girls point out that Google Translate is not the most reliable source one can use in order to find translations and English word definitions, as it tends to make errors and mistakes. Mari and Anne became suddenly shy when we started discussing the reliability of Google Translate, which we believe was because they felt embarrassed to say that they use it even though they know it often provides inaccurate translations. We asked Anne if she could explain what Google Translate is, as if she was talking to a person who did not know what it was. She described it as a digital tool that "actually gives bad translations". She also explained that she has become accustomed to double check if it is adequate, by comparing it to other web sites.

Why do they still find it useful and valuable? One assumption could be that the pupils are indifferent towards their grades and their learning outcome, resulting in a careless attitude towards quality. However, since these four pupils are very fond of the English subject and have established an above average proficiency level in said subject, this seems unlikely. Another assumption can be that the pupils are capable of assuring the quality of the tool and the results it generates, leaving them with enough competence to know when the translation or definition is right or wrong for their specific situation or context.

The focus group say that there are more reliable digital tools and dictionares available to them, however, the participants are only able to mention three; Google Translate, TriTrans (mentioned only by one of the pupils) and Google (which is a search engine, not a digital dictionary). This correlates with the findings in the study conducted by Margaryan, et al. (2011). Their findings shows that pupils use a limited range of digital tools, and that they have little competence in how they can use them towards learning.

## 6. Conclusion

We have now explored several aspects of the look-up strategies Norwegian pupils use in order to find translations and definitions of words in the English subject. Bearing in mind that our field research was only conducted in one class at a lower secondary school and in cooperation with only one teacher, we can only determine how look-up strategies are used in this specific class and arguably the specific school. Schools, classes and pupils are all different in their own way. They can have a unique identity, different cultures, exclusive resources, explicit priorities etc., and for this reason, the results of this study might vary from area to area. Our goal was to get an understanding of how Norwegian pupils use look-up strategies today. We believe that Norwegian pupils have become more similar to one another, and share a stronger culture today than before through the prospects of the Internet. They are more social and can now share their thoughts and ideas without difficulty through the Internet – via social networks such as Facebook, Instagram and Snapchat. For this reason, Norwegian pupils' look-up strategies might be more alike across the country than we might believe. Since this topic has been scarcely researched in Norway, it is our hope that this study and our assumptions might inspire others to investigate it in further research on a larger scale.

### 6.1 Attempts to answer

Our results show that the pupils in our study prefer using digital look-up strategies, which correlates with our hypothesis. Google Search Engine and Google Translate are the dominant *digital* strategies throughout the class, both in and outside of school. However, our questionnaire shows that the strategy of *asking the teacher* is equal to Google Search Engine and Google Translate in terms of usage in school. This also answers our question if they use the same strategies at home, as they do in school.

The main reasons for using Google Search Engine and Google Translate, as shown through both the questionnaire and the interviews, is the web sites' ability to be 1) *fast*, 2) *effective* and 3) *produce quality results*; the first one being the most dominant reason and the last the least dominant. We have also looked into other reasons that we argue can be relevant for the pupils, mainly the web sites' *popularity*, *accessibility* and, specific for Google Translate, its ability to translate full sentences.

Many pupils prefer using digital look-up strategies both at school and at home. Most of these have developed or learned these strategies by themselves, but a few learned to use both Google and Google Translate from a teacher when they attended primary school. At school however,

some do prefer asking the teacher to assist them in finding translations and word definitions. We assume that these pupils have learned this strategy directly from their English teacher.

The pupils say that they are aware that other digital tools and dictionaries are more reliable than Google and Google Translate, however, they were only able to mention three (Google, Google Translate and TriTrans). It seems that their ability to evaluate the digital tools and dictionaries depends on their proficiency level. Those with high proficiency skills are able to determine if the translation and definition is accurate, while those with mediocre and low proficiency skills are not as fortunate.

## **7. Resource Guide**

This resource guide is created as an inspirational manual for those who wish to learn more about some of the digital tools and dictionaries that can be utilized in order to find translations, synonyms and definitions. This guide describes both the positive and negative aspects of different tools/dictionaries and their user-friendliness.

We hope that this guide can be beneficial to teachers, as well as pupils. Keep in mind that these are our own personal opinions about specific tools and dictionaries, therefore it might not comply with the opinions that readers might receive/have.

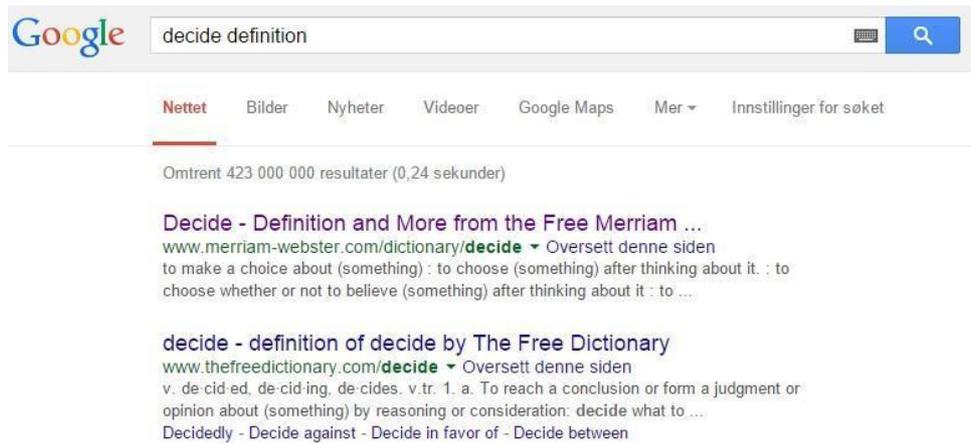
The pictures in this resource guide are screenshots taken by us. We do not own the content or any rights to these digital tools, nor have we received any funding from the creators of these digital tools or dictionaries.

### **7.1 Online Dictionaries**

We will now look at some websites and digital tools that offer online services towards finding translations, synonyms and definitions of English words. We have chosen to examine both the sites that the participants in our study use, and look at others that can be beneficial towards finding reliable translations and definitions.

#### **Google Search Engine**

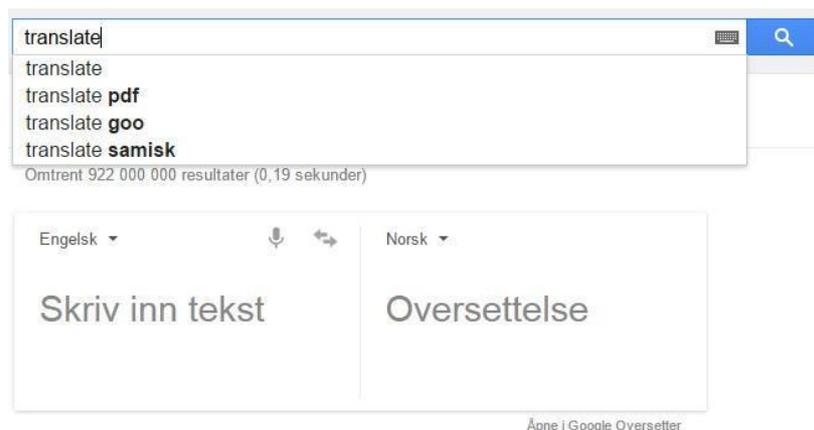
Google is a world-known website that most people use on an everyday basis. It is a search engine that helps users find other Internet sites by searching for specific words or keywords. Google Search Engine is a digital tool for finding information, but can also be controversial. The search results are listed by relevance towards the keyword and the number of visits, not by the content itself. Even though a web page has had several visitors and readers, this does not necessarily mean that it is more trustworthy or accurate than others. Also, web pages with marketing funds can buy advertisement slots, which will increase their number of visits and result in a climb on Google's search list. Google will automatically locate your location by tracking your IP-address (a unique code that only your device have that can be used to find your location and identity), and display its content in the native language of the country you are in. In our case, Norwegian.



In the picture above, we have used Google to search for the definition of the English word “decide”, which displayed Merriam-Webster and The Free Dictionary as the two top results. Keep in mind that the search results will vary depending on which words and keywords users choose to search for, and if users are searching for a definition, synonym or translation. Therefore, the search results will often show different digital dictionaries from one search to another.

## Google Translate

Google offers another service called Google Translate which translates words and sentences into 90 different languages. Since Google has its own web browser and is also the most common search engine people use, the top result when using words such as “translate” and “translation” as your keyword will always be their own digital translation tool.



Google Translate will automatically pop up even before users have pressed “search”. This might be the main reason why this service is so popular, as it is easy to find and even easier to use. Google Translate has also a “playback” button, where a computer animated voice will read and pronounce the word or sentence the users have written/searched for.



Google Translate can be used to find translations and word definitions as the picture above shows. However, it has a limited synonym register. It did not have any synonym suggestions when we looked up the word “decide”.

Users can also translate full sentences in Google Translate, not just one word at a time.



Google Translate use advanced algorithms and computer codes, but there is no such code or formula that exists today that can fully translate sentences from one language to another and still be 100% grammatically correct. As the example above shows, the Norwegian sentence loses its meaning when translated into English via Google Translate. The correct translation would be “The dog sat outside the porch door and barked at the man”. The determiner “the” was omitted several times, while the translation of “bjeffet på mannen” was converted to “barked at her husband”, which is completely wrong. This example demonstrates how unpredictable Google Translate can be. Advanced language learners will see these mistakes, but lesser advanced pupils are not as fortunate. They might accept sentences such as these, which will affect their capability towards language learning. If they are not able to see these mistakes, they should not use digital tools that have the potential to make grammatical errors. Pupils need to be involved in this process if they are to learn anything from it. A Norwegian word can have many different significations in English, and vice versa. Today’s computer

codes, which are being applied to translate words and sentence, are not advanced enough to pick up the signification and grammatical differences from one language to another.

## TriTrans

TriTrans is an online dictionary that translates words from and to English, Norwegian and Spanish. It is a simple website, and quite easy to use. It has an apprehensible layout, however there are no instructions of how the dictionary works.



The screenshot shows the TriTrans website interface. At the top, there is a logo consisting of a colorful flag and the text "TriTrans". Below the logo, the text "Translate words between Spanish, English and Norwegian." is displayed. There are three radio buttons for selecting the source language: "From English" (selected), "From Spanish", and "From Norwegian". Below this, there is a text input field containing the word "decide", followed by "Translate!" and "Clear" buttons. A link says "If your keyboard doesn't have the special characters, click here and adjust the cursor:". Below that is a row of buttons for special characters: á, é, í, ó, ñ, ú, ü, æ, ø, å. There is a Google search bar with a "Search" button. Below the search bar, there are radio buttons for "Internet" (selected) and "TriTrans". There are also social media buttons for "Like" and "Share" (Facebook), and a "SHARE" button with social media icons. At the bottom, there is a copyright notice "©2015 TriTrans" and a link to "Privacy Policy".

Even though there are no directions, it takes little effort to learn how to use TriTrans. Press on the language the word you want translated originates from, type the word you want translated followed by pressing “translate!”. One of the downsides of TriTrans is that it has a limited word register. It might therefore not always find the specific word the user is looking for.

## TriTrans Search Result

You are here: >[Main Menu](#) >[Search Result: decide](#)

- English: [decide](#) 
- Spanish: [acordar](#)  , [decidir](#)  , [decidirse](#) 
- Norwegian: [beslutte](#)  , [bestemme](#)  , [bestemme seg](#)  , [vedta](#) 

 = Oxford Dictionaries  = Real Academia Española  = Bokmålsordboka

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[Privacy Policy](#)

We used TriTrans to look up the word “decide” to find the definition and the Norwegian translation. It partly solved this task. It was capable of finding the translation and included several synonyms. However, it excluded the definition of the word. TriTrans is a good digital dictionary which often provides you with an accurate translation since it lists many synonyms of the word you search for. If users find it necessary to translate any of the mentioned synonyms, you can click them (as long as they are highlighted in blue) and they will be translated and new synonyms will appear. TriTrans can be a valuable tool when users are in need of a quick translation.

We will now look at some digital dictionaries and digital tools that has not been mentioned in our study. We included these because we find them more useful and dependable towards English language learning than any of the above-mentioned.

### **TheSaurus**

TheSaurus is a popular synonym dictionary that exist in both paper and digital form. Since it is also a paper dictionary that many know and have used, it has strengthened the reputation of the digital version which has made it into one of the most popular online dictionaries. While the paper version can only find synonyms, the digital one can find definitions and translations as well (by pressing dictionary or translate on the top toolbar).

**decide** see definition of decide Like +1 Aa show all

*verb* **make a determination; settle an issue**

Relevance A-Z Complexity + Length +

**Synonyms for decide** Common Informal

*verb* **make a determination; settle an issue**

agree	set	gather	will	commit oneself
choose	vote	guess	arrive at	draw a conclusion
conclude	adjudge	judge	conclusion	
determine	adjudicate	mediate	call shots	fix upon
elect	award	opt	cast the die	form opinion
end	cinch	pick	come to	go down line
establish	clinch	poll	agreement	have final word
resolve	conjecture	purpose	come to	make a decision
rule	decree	surmise	conclusion	make up mind
select	figure	tap	come to decision	reach decision

When using TheSaurus' word search, it shows the English definition of the word, synonyms categorized by importance (strong yellow colour = most relevant, fading yellow colour = less relevant). By scrolling down the website after conducting a word search, you will find more words related to the search, the origin of the word, example sentences and antonyms. Users can click any of the listed words after a word search to check their definitions and find new synonyms of that word.

Norwegian ↔ English

hunden satt utenfor verandadøra og bjeffet på mannen

symbols & accents 255 Characters Remaining

**Translate**

the dog sat outside the porch door and barked at the man

copy

As previously stated, TheSaurus offers its own translation service, called [translate.reference.com](http://translate.reference.com). By performing a Google search using keywords such as “translation” or “translate” and scroll down to the seventh search result, users will find this digital translation tool. Similar to Google Translate, it is capable of not only translating single words, but full sentences. The picture above shows the same example we tried out in Google Translate. In this case, the sentence was 100% correct. It included the determiner “the” which

Google Translate was not able to do. Also, the sentence did not lose its meaning. This indicates that the algorithms and computer codes TheSaurus uses to conduct translations are superior to the ones Google Translate uses. However, since Google controls the search results when using the Google search engine, their translation tool will always outrank others. Nonetheless, TheSaurus can obviously make grammatical and contextual mistakes when translating full sentences, but it looks like it is more advanced than Google Translate.

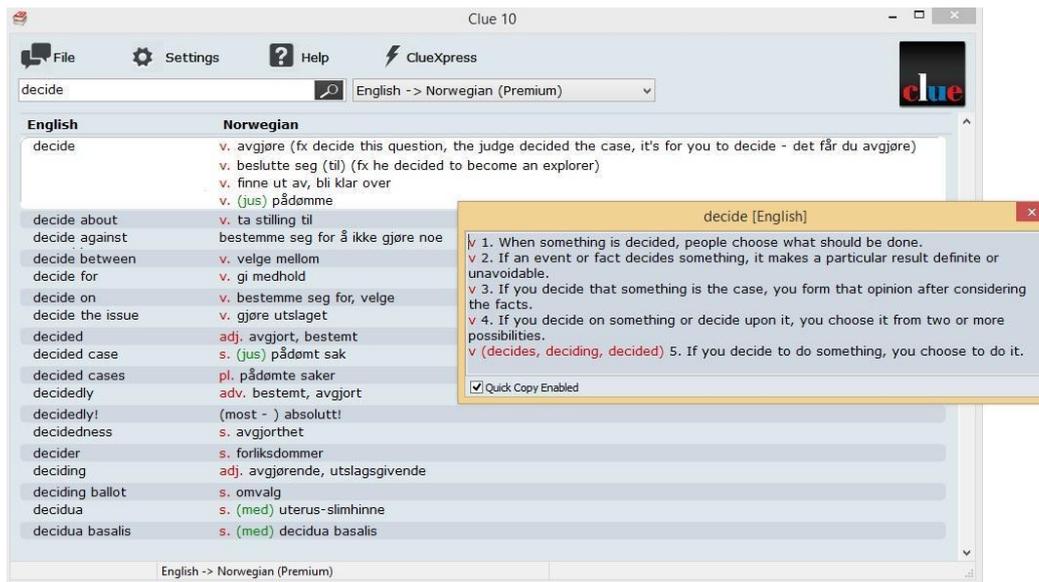
TheSaurus is a digital tool that has educational value. It is more appropriate than the ones we have discussed till now, since it gives more information when conducting word searches and more reliable definitions, translations and synonyms. It allows its users to choose for their own which synonyms they want to use, but still lists them by relevance. TheSaurus can be difficult to use for young learners new to the English language, and therefore we recommend that new users should be introduced to it and receive some formal training before trying it out themselves.

## **7.2 Offline Dictionaries and applications**

From personal experience, we have seen that some schools do not allow their pupils Internet access since they might misuse it or that it might hinder their learning capacity. Since online dictionaries require Internet, the pupils at these schools are not able to take advantage of websites and digital tools that offer service towards finding word definitions, synonyms and translations. We will now look at some digital dictionaries that have an offline function, which can be beneficial towards this type of schools.

### **Clue 10**

*Clue 10* is a dictionary developed by a Norwegian company, proclaiming to be Norway's most used dictionary. It offers translations into 11 languages and a word register of over 7 million words. It has both an online function, where users can access it through a website, and an offline function which is accessible through a minor instalment on the user's local computer or digital device.



*Clue 10* is easy to use, thanks to the automatically “trips and tricks” function that appears the first time users open this dictionary. Choose the original language of the word you want translated and the language you want it to be translated into. Right clicking on words will open another window which displays the definition, conjugations and examples of how the word can be used in a sentence. *Clue* starts the word search as soon as users start typing and will often find the word before the entire word has been written. Users can choose if they want the menu language to be in Norwegian or English. Left clicking on words will automatically copy them to the clipboard, so users can easily paste it into their text document. *Clue 10* can find definitions, synonyms and translations of single words, but not full sentences.

*Clue* has an extensive word register, diminishing the chances that the word search will give zero results. If it is unable to find an appropriate translation, the user can click “help” followed by “missing word”, which will send an e-mail to customer service. They will then contact the user directly and offer their assistance until the user is satisfied (we have not tested this function, therefore we do not know how long this process might take).

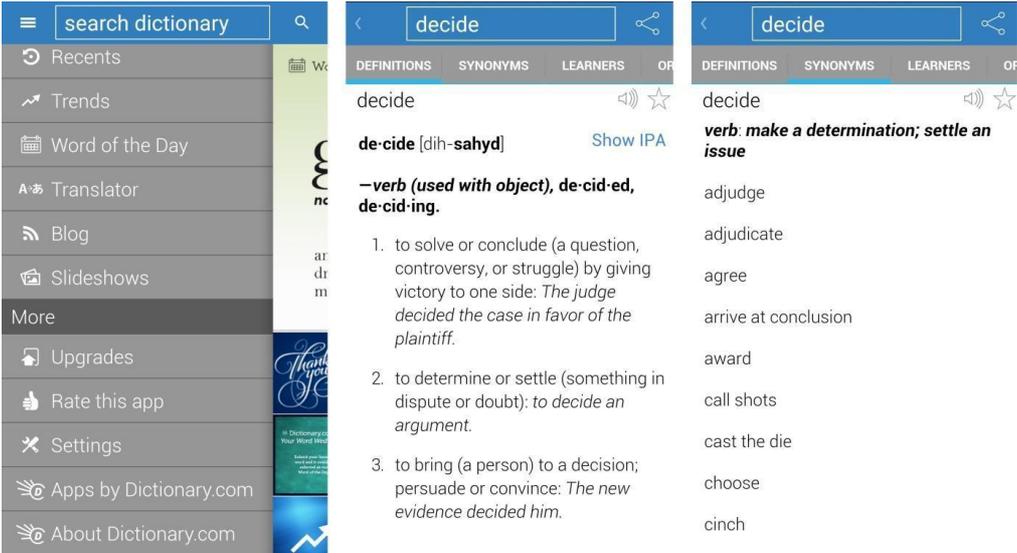
*Clue* requires a subscription that costs money. The offline version cost approximately 950 NOK for a six years license and 39 NOK per month for the online dictionary. Most schools cover these costs so pupils can use *Clue* for free.

Offline digital dictionaries such as *Clue 10* require a lot of free space on your personal computer or digital device since it stores all the words it has available in its word register on your hard drive.

Dictionaries can also be accessed on smartphones and digital devices through the Internet and downloadable applications. By browsing the top downloadable dictionaries that are available on the app market, you will find dictionaries that offer translations and word definitions for free. These digital dictionaries are able to provide their services free of charge because they have built-in adverts that they earn money on. Most of these dictionaries have ad-free versions, but these cost money. Also, they usually have a limited word register and do not provide you with as much information as the valued ones.

### 7.3 Dictionary phone application

Dictionary.com (founder of TheSaurus), has a simple app called *Dictionary Premium*. It costs approximately 39 NOK (both for Android and iOS devices). One smart feature that *Dictionary Premium* offers is an offline mode. This means that the application stores its word register locally on the users smartphone, and it is not required that the device is connected to the Internet to find word definitions or translations (this must be activated in settings).

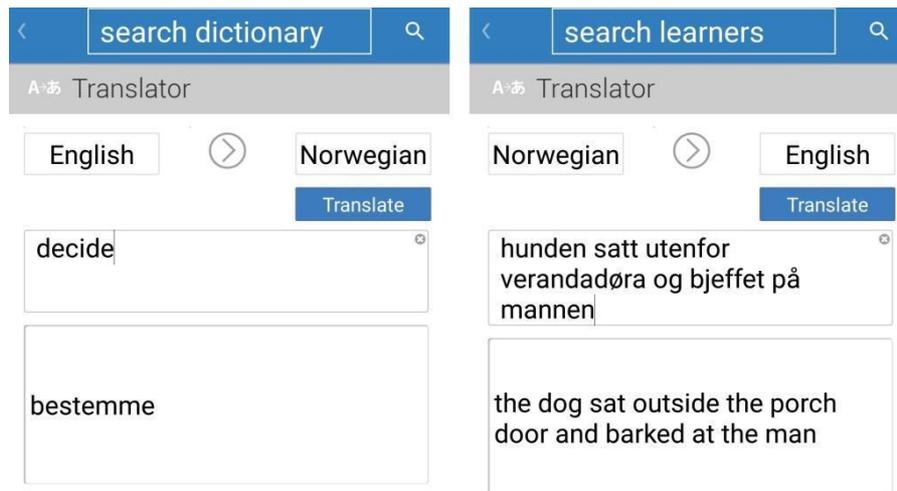


Picture A

Picture B

Picture C

*Dictionary Premium* has several features which you can see in Picture A. By using the search bar located on top of the application, it will automatically find the word’s definition (See example in picture B). The search results offer quite a lot of information. By sliding left you can find synonyms (Picture C), and if you continue sliding you can find the word’s origin, rhymes, examples, encyclopaedia entries and much more. Even though there are no instructions on how to use *Dictionary Premium* for beginners, it is a very easy app and has apprehensible menus.



To translate words from one language to another using *Dictionary Premium*, simply press “translate” in the menu, select the target languages and type the word or sentence you would like to translate. Unfortunately, it will not display any information or synonyms when using this feature, only one main translation. We have previously discussed that this can be a disadvantage, since users can be led to believe that there is only one “correct” translation. Advanced language learners are capable of determining if the search result is correct; if it is not they will look elsewhere. Less advanced language learners on the other hand, might not be capable of making such assumptions and accept that there is only one correct translation of the word “decide”. We tested the translation function to translate the sentence we have used earlier. Since *Dictionary Premium* uses the same translation engine as the website version, it came up with the exact same result.

### **Clue Phone Application**

*Clue* also offers an application for smartphones. This application is accessible if users have an account that has bought any of the licenses or if the user has a free trial consisting of 15 days. However, this app requires an Internet connection to access and operate it, as it cannot be used while offline.



Picture D



Picture E



Picture F

The menu on the *Clue* application seems to be more modern than the computer version, and much easier to use. Simply tap on the language of origin of the word you want translated and the language you want it to be translated into (picture D). Use the search bar to type in the word (in our case, “decide”, picture E) and the application will show several synonyms and translations which users can choose from. Tapping on one of the search results given will show more detailed information of that word, conjugations, definitions and example sentences of how the word can be used (picture F).

This application does also save all conducted searches, so users can browse their search history in order to easily find the words and their definitions again. The *Clue* application for smartphones does however not apply users with the same amount of information as the computer version. Nevertheless, this app can be beneficial towards those who prefer using digital dictionaries than the paper versions and for schools who allow pupils to use their smartphone devices during lessons, since it seems to be a serious and reliable dictionary.

## 7.4 Our evaluation

The digital dictionaries and tools that we have discussed are some of the ones we personally use and have come across during our study. We are not stating that these are the most appropriate digital dictionaries on the market regarding educational purposes or language learning. We have simply discussed and evaluated the negative and positive aspects of more

reliant and dependable dictionaries. The intention of this resource guide is to inform schools and teachers of different digital dictionaries and digital tools that the Internet has to offer.

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## **Appendix 1 SPØRREUNDERSØKELSE, 2015 – HVORDAN FINNER DU OVERSETTELSER OG BETYDNINGER AV ENGELSKE ORD PÅ SKOLEN OG PÅ FRITIDEN**

### **DEL 1**

I denne delen av spørreundersøkelsen, vil vi vite hvilke strategier du bruker på skolen når du jobber individuelt eller i gruppe med andre elever. Sett ring rundt svaralternativet du kjenner deg mest igjen i.

**1. Hva bruker du som oftest å gjøre når du trenger å oversette eller finne betydningen av et engelsk ord i engelsktimen på skolen?**

Spør lærer      Spør noen i klassen      Slår opp i ordbok      Bruker internett

**2. Hvis du svarte internett på forrige spørsmål, hvilke nettsider, digitale verktøy eller applikasjoner tar du da i bruk?**

---

**3. Hvorfor bruker du denne strategien på skolen? Ranger alternativene etter viktighet for deg (1 – viktigst, 5 – minst viktig)**

Raskt      Gir best resultat      Det er slik jeg er vant til å gjøre det  
Enkelt      Det er slik jeg har lært å gjøre det

**4. Hvor har du lært denne strategien?**

Av meg selv      Skole/lærer      venner      familie

### **DEL 2**

I denne delen av spørreundersøkelsen, vil vi vite hvilke strategier du bruker hjemme og på fritiden. Dette gjelder både til lekse og hvis du kommer over et engelsk ord i en film eller et spill og er nysgjerrig på hva det betyr. Sett ring rundt svaralternativet du kjenner deg mest igjen i.

**5. Hva bruker du som oftest å gjøre når du trenger å oversette eller finne betydningen av et engelsk ord på fritiden?**

Spør et familiemedlem      Bruker Internett      slår opp i ordbok      Spør venner

**6. Hvis du svarte internett på forrige spørsmål, hvilke nettsider/digitale verktøy tar du da i bruk?**

---

**7. Hvorfor bruker du denne strategien på fritiden? Ranger alternativene etter viktighet for deg (1 – viktigst, 5 – minst viktig)**

Raskt      Gir best mulig resultat      Det er slik jeg er vant til å gjøre det  
Enkelt      Det er slik jeg har lært å gjøre det

**8. Hvor har du lært denne strategien?**

Av meg selv      Skole/lærer      Venner      Familie

**DEL 3**

I den siste delen av undersøkelsen lurer vi på hvor ofte du bruker internettsider/digitale verktøy til å finne oversettelser eller betydninger av engelske ord, hvor pålitelig du finner disse hjelpemidlene og hvor fornøyd du er med dem. Sett ring rundt svaralternativet du kjenner deg mest igjen i.

**9. Foretrekker du å bruke internett og digitale hjelpemidler til oversettelser og til å finne ordforklaringer fremfor skriftlige ordbøker og å spørre andre?**

Ja

Nei

**10. Fra en skala 1 til 10 (hvor 1 er «overhodet ikke» og 10 er «alltid»), hvor pålitelig synes du internettsider og digitale verktøy er til å oversette og finne betydninger av engelske ord?**

1      2      3      4      5      6      7      8      9      10

**Begrunn svaret ditt over (hvorfor synes du at de er pålitelig/ikke pålitelig):**

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**11. Hvor ofte er du fornøyd med resultatet du får når du bruker internett og digitale verktøy til å oversette og finne betydninger av engelske ord?**

Alltid      Svært ofte      Ofte      Sjeldent      Aldri

**12. Begrunn svaret ditt (hvorfor er du fornøyd/mindre fornøyd):**

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## Appendix 2 – Lærerintervju

Strukturert

Estimert tid: 45 min

Mål: Utforske lærerens standpunkt til elevers bruk av strategier til ordtilegnelse, finne oversettelser og ordforklaringer i engelskfaget. Vi vil finne ut hvilke råd og strategier lærer og skolen videreformidler til elevene når det kommer til strategier for ordtilegnelse. Vi vil også etterforske om lærer og skolens strategier er digitalisert og hvordan de stiller seg til slike digitale strategier og hjelpemidler.

Vi vil begge være tilstede under intervjuet og det vil ta sted på den lokale skolen. Intervjuet vil foregå på norsk, og vil bli oversatt til engelsk på et senere tidspunkt. Vi tror at informanten vil føle seg mer avslappet og rolig hvis intervjuet tar sted på en plass den er kjent med og får bruke sitt eget morsmål, noe som forhåpentligvis vil resultere i dypere og mer innsiktsfulle svar.

### Prosedyre:

Informasjon vil bli gitt om:

- Lydopptaker (intervjuet vil bli tatt opp)
- Anonymitet (Informanten vil bli anonymisert)
- Muligheten for å trekke seg fra intervjuet, både under intervjuet og i etterkant
- Informanten kan kontakte oss etter intervjuet hvis han/hun vil endre eller klare opp i noe som ble sagt under intervjuet

### Innledning

- Hvor mange år har du jobbet som lærer?
- Hvor mange år har du jobbet på denne skolen?
- Hvilken utdanning har du tatt?
- Hvor mange studiepoeng har du i engelsk (litteratur, språk, kultur og didaktikk)

Innledningsspørsmålene er laget for å få innsikt i lærerens bakgrunn og utdanning. Dette kan ha innvirkning på hvor godt læreren kjenner klassen. En nylig utdannet lærer eller en lærer som ikke har jobbet lenge på den aktuelle skolen har muligens ikke nok kjennskap til skolens/fagseksjonens rutiner eller blitt godt kjent med elevene. Siden vi skal forske på hvilke strategier elever bruker for å tilegne seg nye engelske ord, er det viktig at en lærer har innsikt i klassens sedvaner når det gjelder dette temaet. Utdanningen til den nevnte lærer kan også ha en innvirkning på lærerens erfaringer og kunnskap med forskjellige strategier og er i stand til å vurdere disse.

### Måloppnåelse

- Hvordan vil du beskrive nivået til klassen i engelskfaget?
- Hva mener du kjennetegner en god elev i engelskfaget?
- Svar: Gode testskårer og godt språk
- Hva gjør at elever får gode testskårer i vokabular og ordforståelse?
- Svar: De øver til prøver og legger mye arbeid i oppgaver og innleveringer
- Hva kreves for å kunne skåre høyt på engelskprøver?
- Svar: Språkforståelse og grammatikk

### Vokabular og ordforståelse

- Hvor viktig betrakter du vokabularutvikling blant elevene?
- Hvordan måler du elevenes utvikling innen dette?
- Svar: Muntlig språk
- Svar: Skriftlig språk
- Svar: Gloseprøver

- Spørsmål til alle svar: Stiller du krav til avansert språk på prøver og oppgaver?
- Hvilke undervisningsteknikker blir brukt for å fremme utvikling av vokabular?
- Svar: Lesing
- Svar: Skrivning
- Svar: Gloser
- Svar: Oppgaver
- Spørsmål til alle svar: Hvordan blir disse undervisningsteknikkene tatt i mot av elevene, og hvilken effekt har de hatt på deres vokabularutvikling?

### **Strategier og vurdering**

- Hvilke strategier blir elever lært opp i av deg og skolen til å finne ordforklaringer og oversettelser av engelske ord?
- Svar: Ordbøker og lærebøker
- Føler du at denne strategien/ene blir tatt i bruk av elevene
- Hvor mange ordbøker har dere til rådighet i engelskundervisningen?
- Svar: Noen fysiske ordbøker, men også datamaskin og internett
- Digitale, hvilke?
- Hvorfor nettopp den/disse?
- Hvilke strategier føler du blir mest brukt av elevene?
- Hvorfor nettopp den/disse?
- Tror du elever bruker andre strategier til å tilegne seg nye engelske ord, finne ordforklaringer og oversettelser på fritiden enn på skolen?
- Svar: Oversettelsesimulatorer
- Hvorfor tror du at det er sånn?
- Svar: Lett og enkelt.
- Er elevene i stand til å vurdere de forskjellige strategiene?
- Svar: De vet at enkelte strategier gir ikke alltid det beste resultatet
- Hvorfor blir de da tatt i bruk?
- Svar: Spare tid, enkelt
- Blir disse "lettvinte og enkle" strategiene brukt ofte?
- Svar: Ikke til til innleveringer eller til oppgaver de får karakterer på
- Hvorfor ikke?
- Svar: Da er de mer nøye med språket og innholdet for å få et bedre resultat

### **Teknologi og digitale hjelpemidler**

- Hvor ofte blir datamaskiner tatt i bruk i engelsktimene?
- Svar: til research og skriveoppgaver
- Får elever opplæring i hvordan de kan finne ordforklaringer og oversettelser på internett?
- Hva er skolens standpunkt til mobilbruk i timene?
- Svar: Kommunen gir ansvaret til hver enkelte skole. Elever får lov til å høre på musikk når de skal jobbe individuelt og for å få arbeidsro
- Får elevene bruke mobiltelefon for å slå opp et engelsk ord?
- Fordeler ved bruk av internett i engelskundervisningen?
- Ulemper ved bruk av internett i engelskundervisningen?

### **Avslutning**

- Er det noe mer du ønsker å legge til nå før intervjuet avsluttes?
- Er det noe du føler at vi burde vite?
- Har du noen spørsmål til oss?

*Takk for samtalen*

# Appendix 3 - Elevintervju

Semi strukturert

Estimert tid: 2x 45 min

Mål: Finne hvilke strategier elever bruker til å tilegne seg nye engelske ord, oversettelser og finne ordforklaringer. Finne ut om elevene følger rådene lærere og skolen har satt angående strategiene eller om de har egne strategier som de bruker. Utforske om strategiene som blir brukt er digitalisert, hvorfor de blir brukt og om det blir brukt forskjellige strategier på skolen kontra på fritiden.

Vi planlegger å utføre et semi-strukturert intervju med en fokusgruppe bestående av fire elever på ungdomstrinnet. Dette intervjuet vil ta sted etter lærerintervjuet (strukturert) og en spørreundersøkelse med klassen. Resultatet fra spørreundersøkelsen vil bli tatt i betraktning når vi skal velge kandidater til fokusgruppen og spørsmålene vi planlegger å utforske. Spørsmålene i dette intervjuet representerer forskningsprosjektet vårt og hva vi vil etterforske. Mest sannsynlig vil flere spørsmål bli tilføyet etter spørreundersøkelsen. Vi vil også spørre læreren om forslag til kandidater til fokusgruppen siden han/henne har mer innsikt i elevenes bakgrunn og hvem som kan være gode informanter til vårt forskningsprosjekt.

Vi vil begge være tilstede under intervjuet og det vil ta sted på den lokale skolen. Elevene vil bli intervjuet i par. Intervjuet vil foregå på norsk, og vil bli oversatt til engelsk på et senere tidspunkt. Vi tror at informantene vil føle seg mer avslappet og rolig hvis intervjuet tar sted i en lokasjon de er kjent med, sammen med en klassekamerat og på deres morsmål, som forhåpentligvis vil gi dypere og mer innsiktsfulle svar til våre spørsmål.

## Prosedyre:

Informasjon vil bli gitt om:

- Lydopptaker (intervjuene vil bli tatt opp)
- Anonymitet (informantene vil bli anonymisert)
- Muligheten for å trekke seg fra intervjuet, både under intervjuet og i etterkant
- Informanten kan kontakte oss etter intervjuet hvis han/hun vil endre eller klare opp i noe som ble sagt under intervjuet

## Introduksjon:

1. Hva føler du om det engelske språket?
  1. Liker du det/misliker du det?
  2. Hvorfor?
1. I hvilke situasjoner bruker du det engelske språket (både på skole og på fritiden)?
  1. Hvorfor?

## Måloppnåelse

1. Liker du engelskfaget?
2. Hva føler du er dine sterke sider i engelskfaget?
3. Hva føler du er dine svake sider i engelskfaget?

## Vokabular og ordforståelse

1. Hvor viktig synes dere det er å lære nye engelske ord i engelskfaget?
  1. Hvorfor?
2. Hvordan er det dere lærer og plukker opp nye ord på i engelskfaget?
  1. Svar: Lesing
  2. Svar: Skrivning

3. Svar: Gloseprøver
4. Svar: Media
5. Svar: Ordbøker
  1. Spørsmål til alle svar: Hvordan foretrekker dere å lære nye engelske ord?
3. Forbedrer dere det engelske vokabularet best på skolen eller på fritiden?
  1. På hvilken måte?

### Strategier og vurdering

1. Hva gjør dere når dere møter nye engelske ord som dere ikke har kjennskap til fra før?
2. Hvordan går dere frem for å finne ut betydningen/oversettelsen av ordene?
  1. Hvorfor gjør dere det på denne måten?
  2. Hvor har dere lært denne/disse?
1. Har dere fysiske ordbok tilgjengelig i klasserommet?
  1. Hvor ofte vil du si at du bruker fysiske ordbøker til å finne ord, betydninger og oversettelser?
  2. Svar: Ofte
  3. Svar: En del
  4. Svar: Lite
  5. Svar: Aldri
    1. Spørsmål til alle svar: Hvorfor så mye/lite?
1. Hvilke andre strategier kjenner dere til som kan brukes til å lære seg nye ord, finne betydninger og oversettelser?
2. Bruker dere den samme strategien når du møter nye ord utenfor skolen? (For eks. tv, musikk, spill osv)
  1. Hvis nei, hvordan og hvorfor?

### Teknologi og digitale hjelpemidler

1. Får dere ofte bruke datamaskin i engelsktimene?
  1. Hva blir de brukt til?
  2. Blir de alltid brukt til dette...eller?
2. Hva med mobiltelefon, får dere lov til å bruke den i engelskundervisningen?
  1. Hva blir de brukt til?
3. Har dere hørt om Google Translate?
  1. Hvordan vil du beskrive denne tjenesten?
  2. Vet du om flere nettsider som tilbyr samme tjeneste?
1. Bruker du Google Translate e.l. til å finne nye engelse ord og oversettelser?
  1. Hvilke fordeler ser du med å bruke denne tjenesten?
  2. Hvilke ulemper ser du med å bruke denne tjenesten?
1. Har lærer/skolen uttrykket seg noe om hva de synes om slike nettsider?
2. Har dere fått noe opplæring i nettvett og bruk av slike nettjenester?

Vi vil også lese noen eksempler på oversettelser som har blitt oversatt av Google Translate for fokusgruppen. Informantene skal kommentere om de vil godkjenne utdragene eller ikke (noen vil være gode oversettelser, andre dårlige).

1. Godkjenner du denne oversettelsen, eller fant du noe feil i eksempelet?
  1. Ville du sagt det på en annen måte?

### Avslutning

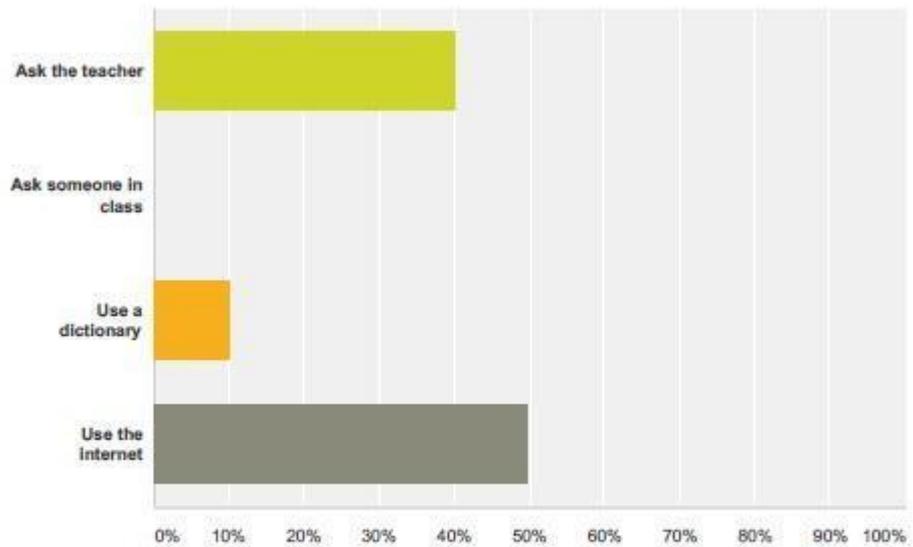
1. Er det noe mer dere ønsker å legge til nå før intervjuet avsluttes?
2. Er det noe dere føler at vi burde vite?
3. Har dere noen spørsmål til oss?

*Takk for samtalen*

## Appendix 4

### Q1 What do you usually do when you need to translate or find the meaning of an English word in English class at school?

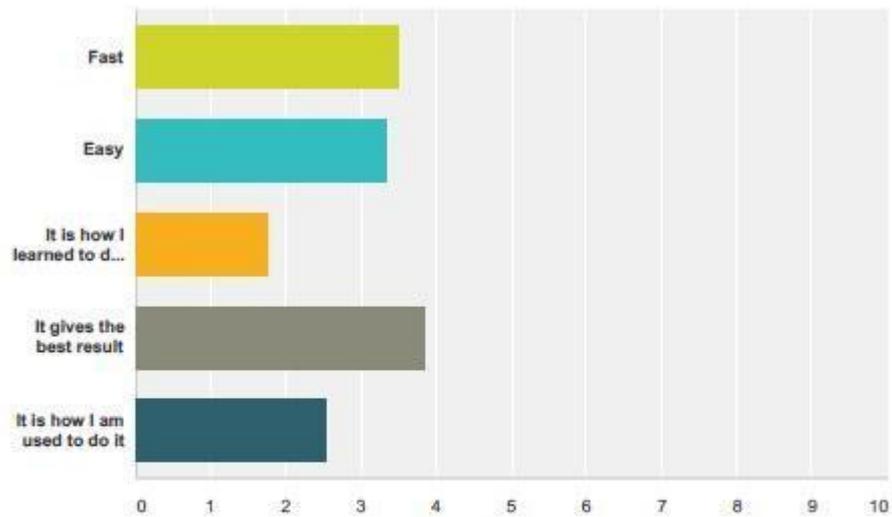
Besvart: 20 Hoppet over: 0



Svarvalg	Svar	
Ask the teacher	40,00%	8
Ask someone in class	0,00%	0
Use a dictionary	10,00%	2
Use the internet	50,00%	10
<b>Totalt</b>		<b>20</b>

**Q3 Why do you use this strategy at school?  
Please rate the alternatives below by  
importance (1 - most important, 5 - least  
important)**

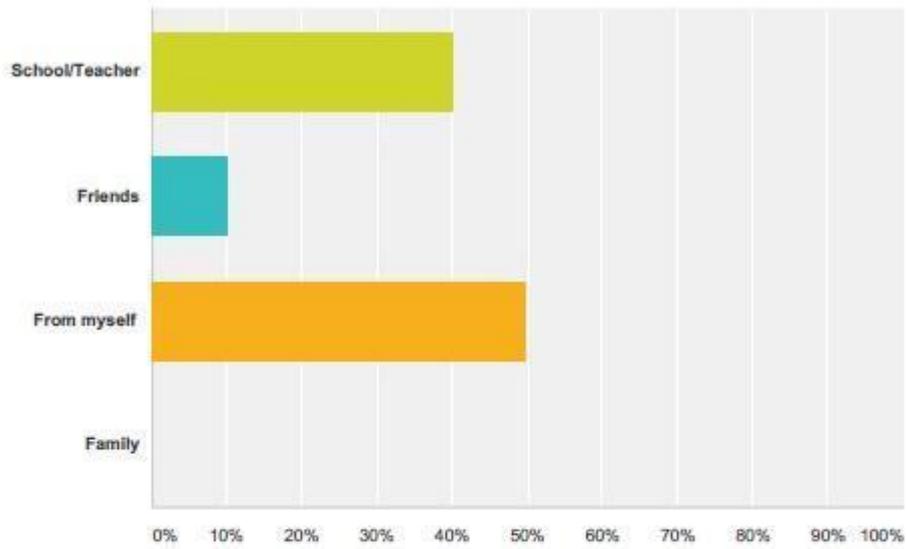
Bevart: 20 Hoppet over: 0



	1	2	3	4	5	Totalt	Poengsum
Fast	35,00% 7	25,00% 5	10,00% 2	15,00% 3	15,00% 3	20	3,50
Easy	25,00% 5	20,00% 4	25,00% 5	25,00% 5	5,00% 1	20	3,35
It is how I learned to do it	0,00% 0	15,00% 3	10,00% 2	10,00% 2	65,00% 13	20	1,75
It gives the best result	35,00% 7	30,00% 6	25,00% 5	5,00% 1	5,00% 1	20	3,85
It is how I am used to do it	5,00% 1	10,00% 2	30,00% 6	45,00% 9	10,00% 2	20	2,55

#### Q4 Where did you learn this strategy?

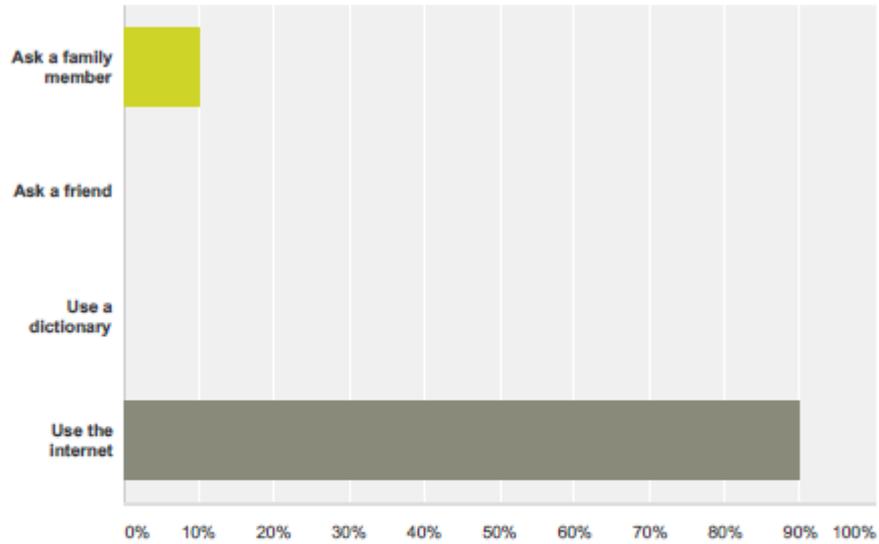
Besvart: 20 Hoppet over: 0



Svarvalg	Svar	
School/Teacher	40,00%	8
Friends	10,00%	2
From myself	50,00%	10
Family	0,00%	0
<b>Totalt</b>		<b>20</b>

**Q5 What do you usually do when you need to translate or find the meaning of an English word in your spare-time?**

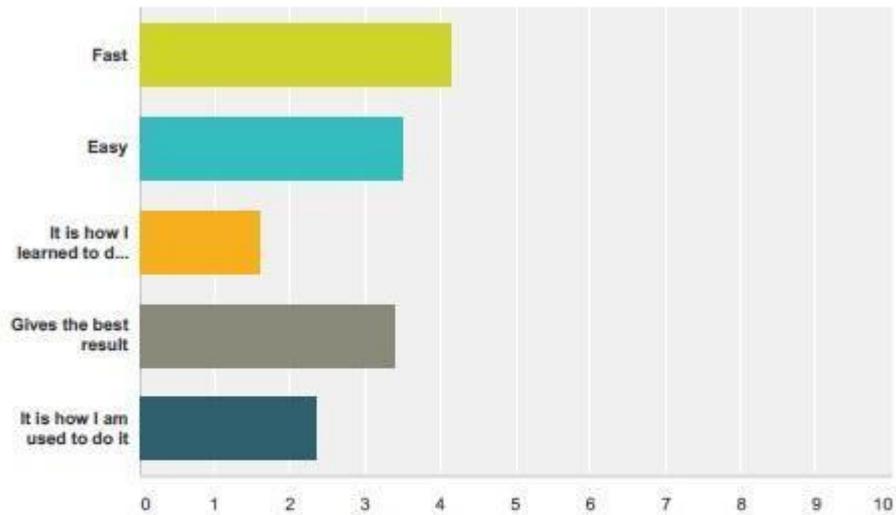
Besvart: 20 Hoppet over: 0



Svarvalg	Svar
Ask a family member	10,00% 2
Ask a friend	0,00% 0
Use a dictionary	0,00% 0
Use the internet	90,00% 18
<b>Totalt</b>	<b>20</b>

**Q7 Why do you use this strategy in your spare-time? Please rate the alternatives below by importance (1 - most important, 5 - least important)**

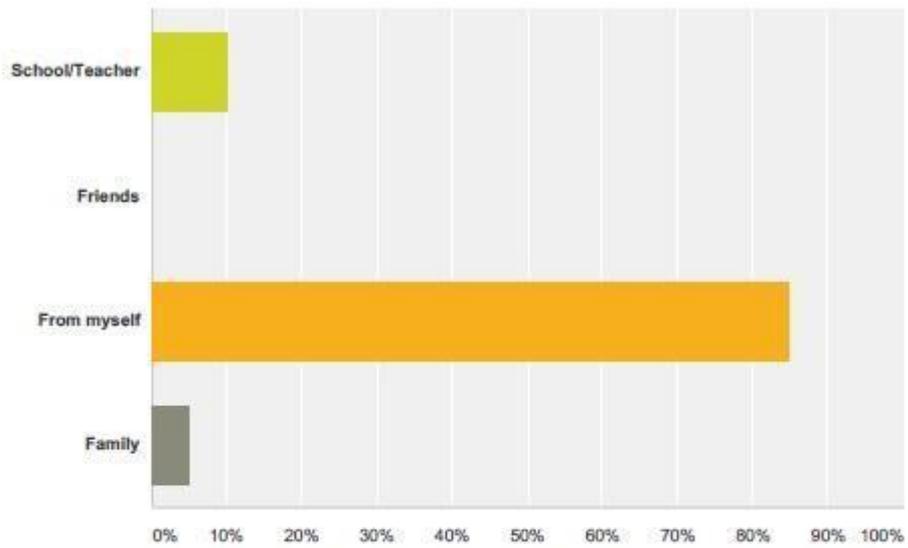
Besvart: 20 Hoppet over: 0



	1	2	3	4	5	Totalt	Poengsum
Fast	60,00% 12	15,00% 3	10,00% 2	10,00% 2	5,00% 1	20	4,15
Easy	10,00% 2	45,00% 9	35,00% 7	5,00% 1	5,00% 1	20	3,50
It is how I learned to do it	0,00% 0	10,00% 2	5,00% 1	20,00% 4	65,00% 13	20	1,60
Gives the best result	25,00% 5	30,00% 6	15,00% 3	20,00% 4	10,00% 2	20	3,40
It is how I am used to do it	5,00% 1	0,00% 0	35,00% 7	45,00% 9	15,00% 3	20	2,35

### Q8 Where have you learned this strategy?

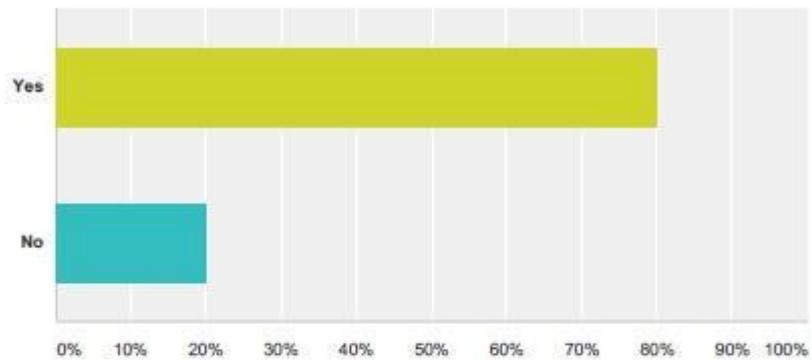
Besvart: 20 Hoppet over: 0



Svarvalg	Svar	
School/Teacher	10,00%	2
Friends	0,00%	0
From myself	85,00%	17
Family	5,00%	1
<b>Totalt</b>		<b>20</b>

**Q9 Do you prefer using the internet and digital tools to find translations and definitions of English words, rather than using physical dictionaries and asking others?**

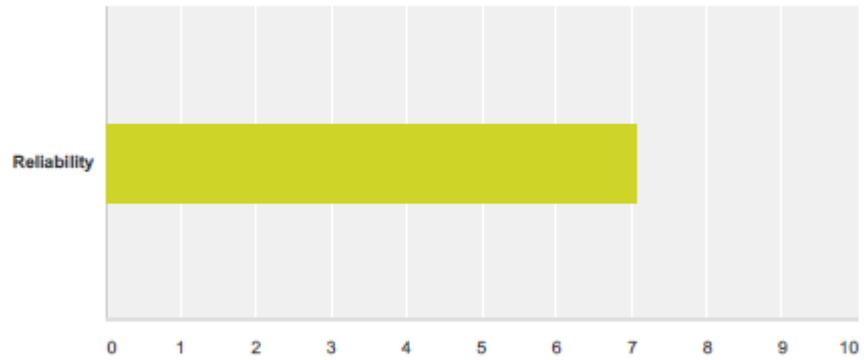
Besvart: 20 Hoppet over: 0



Svarvalg	Svar	
Yes	80,00%	16
No	20,00%	4
<b>Totalt</b>		<b>20</b>

**Q10 On a scale from 1 to 10 (where 1 is "not reliable at all" and 10 is "always reliable") how reliable do you find websites and digital tools when finding translations and meanings of English words?**

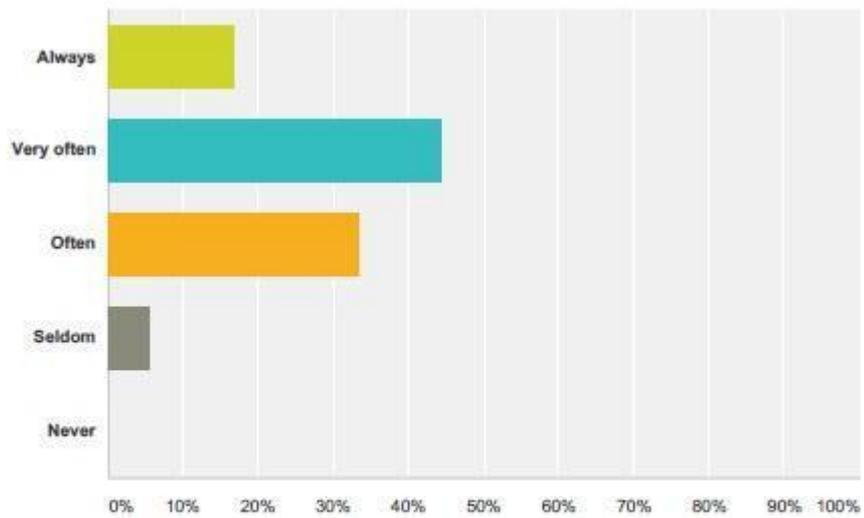
Besvart: 20 Hoppet over: 0



	1	2	3	4	5	6	7	8	9	10	Totalt	Vektet gjennomsnitt
Reliability	0,00% 0	0,00% 0	5,00% 1	0,00% 0	10,00% 2	10,00% 2	35,00% 7	30,00% 6	5,00% 1	5,00% 1	20	7,05

**Q12 How often are you satisfied with the results you get when using the internet and digital tools to find translations and definitions of English words?**

Besvart: 18 Hoppet over: 2



Svarvalg	Svar
Always	16,67% 3
Very often	44,44% 8
Often	33,33% 6
Seldom	5,56% 1
Never	0,00% 0
<b>Totalt</b>	<b>18</b>