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Abstract

This study investigates how Norwegian lower-secondary students perceive online source criticism in the English school subject. Due to digitalization and the increased access to information, online source criticism can perhaps be perceived as one of the most important competences in today's society. Schools and teachers have a particular responsibility in developing this competence amongst students, but there is little research that targets online source criticism in compulsory education in Norway and internationally. Hence, this study aims to produce new research-based knowledge about online source criticism in a school context.

The main objective of this study is to give insight into what knowledge and level of reflection 8th graders hold within the field of online source criticism when starting lower-secondary education. I have carried out a research project with my own English students as participants, focusing on their use of online sources during a writing task in connection to the 2016 American presidential election. This is a qualitative and phenomenological study where interview is the main data collecting method. Observation and document analysis have given additional data.

The main finding of the study was that the students seemed quite unsure in the field of online source criticism. They had difficulties defining the term and it was a challenge for them to give concrete examples of how they assess a webpage's trustworthiness. None of the students seem to have received the training they should have during elementary school in terms of the competence aims in the curriculum and the ICT-plan. In the interviews, most of the students express skepticism towards both online newspapers and Wikipedia. However, the observation and the document analysis showed that these sources were the most used in the written task. Another key finding was that all the students used Google as their search engine, wrote quite general keywords and used little time in their process of searching for online sources to be used in their written work.

This study contributes to research in the field of online source criticism within a school context. The findings of the study may contribute to improved practice in English and other subjects. In addition, it might give valuable input to those who have an impact on the development within the field of online source criticism in the Norwegian school.

Sammendrag

Denne studien utforsker hvordan norske ungdomsskoleelever oppfatter kildekritikk på nett innen engelskfaget. Digitaliseringen av samfunnet og den økte tilgangen til informasjon gjør at kildekritikk på nett er sett på som en av de viktigste kompetansene i dag. Skolen og lærere har et spesielt ansvar i å utvikle denne kompetansen hos dagens elever, men det er lite forskning rettet mot kildekritikk på nett innen grunnskoleutdanningen i Norge og internasjonalt. Derfor tar denne studien sikte på å produsere ny forskningsbasert kunnskap om kildekritikk på nett i en skolekontekst.

Formålet med denne studien er å gi innsikt i hva slags kunnskap og refleksjonsnivå åttendeklassinger innehar innen kildekritikk på nett når de starter på ungdomsskolen. Jeg har gjennomført et forskningsprosjekt med mine egne engelskelever, hvor jeg fokuserer på deres bruk av nettkilder i forbindelse med en skriveoppgave om det amerikanske presidentvalget i 2016. Dette er en kvalitativ og fenomenologisk studie hvor intervju er datainnsamlingsmetoden det legges mest vekt på. Observasjon og dokumentanalyse har gitt ytterligere data.

Studien viste at elevene virket veldig usikre innen feltet kildekritikk på nett. De hadde vanskeligheter med å definere hva det betyr, og det var en utfordring for dem å gi konkrete eksempler på hvordan de vurderte troverdigheten til en nettside. Ingen av elevene virker å ha fått den opplæringen de skal i løpet av barneskolen sett opp i mot kompetansemålene i læreplanen og i IKT-planen. I intervjuene uttrykker de fleste elevene en skepsis overfor både nettaviser og Wikipedia som kilder. Observasjonen og dokumentanalysen viser derimot at nettopp disse kildene var de som var hyppigst brukt i elevenes skriftlige innleveringer.

Denne studien bidrar til forskning innen kildekritikk på nett i en skolekontekst. Funnene kan bidra til forbedret praksis i engelsk og andre fag. I tillegg kan de føre til refleksjon hos alle som har påvirkningskraft på utviklingen innen kildekritikk på nett i den norske skole.

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Chapter 1: Introduction

Today's students represent the first generation to grow up after the arrival of digital technology. Prensky (2001) uses the term "digital natives" to describe these students, seeing them as native speakers of the language of computers, video games and the Internet. Despite the fact that digital natives often are skilled users of digital tools, research shows that their experiences are not specifically linked to competence needed in a school context or in learning (Bennett, Maton & Kervin, 2008). These finding are also confirmed through international tests like PISA 2009 (Frønes, Narvhus & Jetne, 2009, in The Norwegian Centre for ICT in Education, 2013). A digitally competent student is not just a passive consumer of online entertainment, but has an active role when searching for and producing information (The Norwegian Centre for ICT in Education, 2013). Being critical to online information has become a critical competence in the information society which we live in today, and according to The Ministry of Education and Research (2015) it will become even more important in the years to come. It does, however, seem as if online source criticism is not an inborn competence, even for digital natives. Studies on Norwegian students by e.g. Frønes and Narvhus (2012) and Hatlevik and Cristophersen (2013) support this assumption. Therefore, it is evident that online source criticism is a competence that is of great importance within school subjects. Moreover, the current national curriculum (KPR, 2015) underlines the importance of digital competence and the development of online source criticism. It does so by presenting digital competence as a key competence across subjects and by including source criticism in specific competence aims within several school subjects. I argue that all the above-mentioned arguments give good reasons for researching online source criticism within a school context.

1.1 Background and personal motivation for the study

I work as a language teacher in lower-secondary education and have done so for the last six years. Teaching English is in many ways a very satisfying job, but there are also many challenges in connection to knowing how and what to teach due to the quite open curriculum. One of the questions I have asked myself is how we should help students develop knowledge within online source criticism.

When I first started to reflect over what I wanted to research for my master's thesis, I was an English subject teacher in 10th grade. Throughout the school year, I became increasingly aware of the low level of online source criticism within the student group. Many students used little time in the process of searching for information to be used in their written and oral work, seemingly focusing on finding online sources that were easily accessible. More interestingly, the students who were interested in taking their time finding relevant online sources and assessing their reliability had difficulties being independent in the process. After a few weeks of focusing on online source criticism in my lessons it did, however, become quite evident that it is not a competence that is easily or quickly developed. Experiencing these challenges in the ESL classroom simultaneously as having to decide the topic for my master's thesis led to online source criticism becoming the focus in this study.

I became even more confident in my choice of topic after being informed that all the students at the school where I work were to receive each their Google Chromebook[1] within the following school year. I understood that the students' increased access to computers and online sources would, and should, affect my teaching. I had several discussions with my colleagues in terms of challenges and possibilities with the students having constant access to the Internet in the classroom, and it was evident that few of us felt confident in how to work with online source criticism in our subjects.

Knowing that I was to work as an English teacher in 8th grade the following school year gave me the feeling of being given a new start in terms of working with online source criticism with my students, but I also saw it as a good opportunity to research the field. In order to give myself and others answers to how English teachers in lower-secondary education should work with this specific competence, I wanted to research the students' level of competence and reflection within online source criticism when they start at this level. In that way, we as lower-secondary English teachers can see what we have as a starting point. Therefore, I have carried out a research study focusing on 8th graders and what knowledge they have developed in online source criticism throughout elementary school.

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[1] A portable computer with Google's own operative system. *IKT i Trondheimsskolen* (2017). Retrieved from https://www.trondheim.kommune.no/content/1117712834/IKT-i-trondheimsskolen 22.05.2017.

1.2 Target group

This research is meant for educators, school leaders, student teachers, teacher educators, policymakers and educational institutions as well as other persons or organizations interested in the current level of online source criticism amongst Norwegian students. By conducting this research, I hope to contribute with valuable information within the field of online source criticism, hoping that it in the end can contribute to better practice in the ESL classroom.

1.3 Thesis and research question

My research question is, "How do Norwegian lower-secondary students perceive online source criticism in the English school subject?" For this research, I will be looking specifically at a small group of 8th graders at Rauåsen school in Trondheim (the name of the school has been anonymized due to ethical considerations). In order to fully embrace the essence of the students' knowledge in online source criticism, I have chosen to use a qualitative methodology to the research, applying a phenomenological approach. Individual interviews make out the main data collection method in this study, having observation and document analysis as complementing methods.

1.4 Thesis overview

This master's thesis is divided into six different chapters. In addition to these chapters, there are appendixes and a complete reference list at the end of the paper. This chapter, chapter 1, is an introduction to the thesis as a whole. It is also a presentation of my rational and reasoning for conducting this study. Chapter 2 gives a thorough examination of the field of source criticism as well as including a literature review of research relevant to the topic of the study. Chapter 3 presents the overall theoretical framing for the thesis, whilst chapter 4 gives an overview over methodology, research framework, data collection and analysis. The main findings from the analysis will be presented in chapter 5 and further discussed in chapter 6. The conclusion in this last chapter will be based on the research findings seen in the light of theory, current guidelines and previous research that have been presented throughout this paper.

Chapter 2: Review

2.1 Introduction

In this chapter, I will firstly define and describe source criticism, both traditional source criticism and source criticism in connection to online sources, the latter being the field examined in this thesis. Then, I will take a closer look at the position of source criticism in today's school, in addition to a selection of test results. Thereafter, I will present previous research on the field, focusing on source criticism of online sources amongst students at different levels, both in Norway and internationally. Based on this overview I will attempt to place my own research and argue for its relevance.

2.2 Concepts

2.2.1 Traditional source criticism

Source criticism has its origin from history science where strict scientific methods were developed during the 1800's. Source criticism was a typical product of its time, with a belief in reason and exact science. Since then it has become clear that establishing truths is more difficult than firstly assumed. We need to accept that facts are problematic and that most truths are provisional. What is true today might turn out to be false tomorrow. Today we know that all people, deliberately or not, place facts in a theoretical context, and psychology has shown us that human beings are a lot more complex and less rational than we believed when source criticism first arose (Thurén, 2005, pp. 10-11). The motives and interests behind a description will always contribute to a source being more or less reliable. However, how the description distorts the true picture gives a lot of interesting information about motive, interests, opinions and meanings. It is all about how this can be analyzed (Kaldal, 2003, p. 93).

Thurén and Strachal (2011, p. 7) define source criticism as a set of approaches used to determine what is true, or at least likely, in the information we meet. It is no highway to the truth, but a way of assessing the reliability of different types of information. According to Thurén (2005, p. 13), the four basic principles within source criticism are authenticity, time line, independence and tendency freedom. He states that these principles are still good

enough, but that they need to be modified. He underlines that source criticism involves interpretation, which demands rationality and logic, but also fantasy and intuition. Therefore, the metaphor saying that sources are the origin to our knowledge is misleading, since it implies that information is something unproblematic. In many ways, it might be more adequate to consider facts as building materials, where it is important to construct so that the building can stand. In addition, how the building will turn out eventually does not just depend on the building materials, but also the architect (Thurén, 2005, pp. 11-12).

A source can be oral and written, and it can be everything from a letter to answers in an interview. It can also be material such as fingerprints and buildings (Thurén, 2005, p. 9). Many types of sources describe events, situations and persons in ways that can be perceived as credible. However, before we can draw that conclusion, a source must be assessed in a critical manner (Kaldal, 2003, p. 87).

According to Thurén (2005, pp. 7-9), the purpose of source criticism is to assess sources and judge their credibility and truthfulness. Source criticism is about controlling or verifying facts, more specifically using a set of methodical rules to find out what is true, or at least likely. Historians and journalists are the two professions that probably have the most use for source criticism as a method, since checking facts is central to them in their task of presenting and assessing facts for an audience in an objective and reliable way. For an historian it has become considerably more difficult to establish truths since most truths are provisional. In addition, historians back in time had an uncomplicated view on source criticism, which again leads to challenges for today's historians who base their work on those sources. A journalist works under a much higher time pressure than the historian, needing to assess a source's credibility within a short time span, which might lead to them including factual errors in their work. In addition, personal engagement in a case might affect the content of an article, a factor that the journalist must be very aware of. However, source criticism is not only needed amongst journalists and historians, but is also necessary in e.g. the court system and during an Internet search. In fact, all of us do more or less have a need for being critical towards sources (Thurén, 2005, pp. 9-12).

What our time's digital communication has in common with texts, which were carved into stone over 2000 years ago, is the fact that we can understand them in different ways (Kaldal, 2003, p. 58). In the following, I will describe what online source criticism is and give some insight into the nature of it and its challenges.

2.2.2 Online source criticism

At the end of the 1900's, the Internet revolution contributed to a more efficient production and dissemination of written texts. Online, we can find texts which have earlier existed on paper and new texts that perhaps never will exist anywhere else than on screen (Kaldal, 2003, pp. 57-58). Thurén and Strachal (2011, p. 7) claim that the Internet has led to the biggest revolution within information since Gutenberg and his movable type. The capacity to spread information to everyone has increased drastically and new ideas have room to grow, just like when books became a public domain.

Another similarity the Internet and the movable type have in common is the forum it creates for propaganda and hatred (Thurén & Strachal, 2011, p. 7). It is evident that being critical to information is not a new phenomenon. However, with the entry of the Internet, source criticism has become much more of a concern to most people. The latest example might be the phenomena "fake news"[2], which has become a popular expression after the American presidential election in 2016.

Thurén and Strachal (2011, p. 7) underline the responsibility we as users of the Internet have when it comes to searching for the information we want. Due to low costs, unlimited access and a lack of editorial gatekeepers, it is very easy to publish texts which are not thought through as much as they might have been if published on paper. This can for instance lead to students being fooled to believe what they read to be true after an Internet search using theme tags. It is a challenge knowing who, how, when and for what purpose an online source is written. One of the reasons is that online texts are often under construction, similar to oral texts where something that is said can easily be expressed differently the next time (Kaldal, 2003, p. 58).

Frønes and Narvhus (2012, p. 58) state that online reading includes challenges we do not face when reading on paper, both due to the structure of the texts and the demands set to the reader's assessments in the reading process. Thurén and Strachal (2011, pp. 5-6) claim that the traditional approaches used in source criticism are not sufficient in today's society and must be complemented and adjusted to the uniqueness of the Internet. The authors describe it

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[2] Defined as "false reports of events, written and read on websites" by Oxford Learner's Dictionaries (2017). *Fake news*. Retrieved from http://www.oxfordlearnersdictionaries.com/definition/english/fake-news?q=fake+news 02.05.2017.

as if the Internet is flooded by different intentions and drowned in various tasks where kindhearted messages are mixed with malicious ones. In addition, within hours, information is spread and goes from being unknown to widely known. The information is continuously updated, but the purposes from the different sources give diverse messages. Moreover, false information spreads as quickly and easily as correct information. In short, Thurén and Strachal (2011) say that the challenges with information on the Internet is the enormous amount of information that makes it impossible to assess it all, the responsibility given to those who spread the information and the lack of quality criteria. They also stress the responsibility that teachers have in their work with students.

It is important to underline that in this thesis source criticism is delineated to cover trustworthiness, objectivity, accuracy and suitability, and does not cover plagiarism. The latter term can be described as copying information and presenting it as your own by not informing about the sources you have used. Plagiarism therefore deals with how we use the information we find, as opposed to the four other terms which focus on how to choose and assess sources of information. Trustworthiness deals with how honest and reliable a source is, which can be answered through checking who the author is. Objectivity concerns whether the information is neutral, being as close to an unbiased truth as possible and not affected by the author's personal opinions. Knowing the purpose of the publication might uncover a source's level of objectivity. Accuracy says something about how precise and detailed the source is, not omitting information. Checking when the source was last updated and seeing if the author shares his sources are ways of verifying how accurate a source is. Suitability deals with whether the source is appropriate for your intended purpose, based on e.g. of level of complexity and the degree of difficulty in the language. Knowing what is the source's intended audience might say whether a source is suited for your purpose or not. The definitions of these terms are my own, but the descriptions draw on and are supported by e.g. Thurén (2005), Thurén and Strachal (2011) and Trondheim ICT-plan (2016a).

In the following, I will take a take a closer look at the position of digital competence and source criticism in today's school in addition to a selection of test results and previous research on the field.

2.3 Digital competence and source criticism in today's school

2.3.1 Digital competence in the curriculum

The 2006 Knowledge Promotion Reform (KPR, 2015) is the current curriculum in Norway and covers primary, lower-secondary and upper secondary education and training. Through the curriculum, the digital aspect has become a very important part of education in Norway. Over the last years, Norwegian schools have tried to incorporate digital competence as a key competence across subjects into their teaching practices. There are given guidelines from the government on how to understand and teach digital competence due to its complexity and somewhat vague representation in the curriculum.

In the curriculum, digital competence is one out of five key competences, a key competence in the subjects and a part of specific competence aims in the subject curricula. The fact that the subject curriculum has an increased focus on digital skills and is integrated as a part of all subjects at all levels is according to Krumsvik (2009, p. 227) an historic decision that got international attention. The key competence digital skills is described as follows by the Norwegian Directorate for Education and Training (UDIR):

> Digital skills involve being able to use digital tools, media and resources efficiently and responsibly, to solve practical tasks, find and process information, design digital products and communicate content. Digital skills also include developing digital judgement by acquiring knowledge and good strategies for the use of the Internet. (UDIR, 2012, p.12)

The key competence digital skills is divided into four development areas; search and process, produce, communicate and digital judgment. These four areas are again divided into five levels, showing what is expected of the students as they develop this competence (UDIR, 2012). This underlines the importance of digital competence in the curriculum, but also the complexity of it. Digital skills, as it is presented in the curriculum, is often referred to as digital competence in both academic literature and departmental documents, being a term denoting digital knowledge, attitudes, values and skills. Interestingly enough the term "digital competence" is not used in the curriculum itself, but the description of the digital key competence covers the same subtopics (Otnes 2009, p. 12). Digital competence is the term used in this thesis. Furthermore, it is important to point out that the term "digital judgement" in the quote above is what is equivalent to the term "source criticism" which is used in this thesis.

Despite the central role of the Internet in today's society, the Internet is not mentioned specifically in most subject curricula. This is, according to Otnes (2009, p. 17), quite astounding, especially the fact that it is not mentioned in foreign language and English subject curricula. However, the word "authentic" is more central in these curricula. This can be seen as an indirect way to encourage the use of the Internet for an authentic use of language and for creating authentic communication situations (Otnes, 2009, p. 17).

The abovementioned is one of many examples showing that despite the central role of digital competence in the curriculum, there are given few clear instructions in terms of how and why teachers should focus on digital competence, particularly on subtopics like source criticism. My intent with and claim throughout this thesis, both based on own experience and conversations with colleagues, is that teachers need to truly understand and see the usefulness and importance of a topic in order to focus on it in their teaching. The next section therefore takes a closer look at digital competence in the English subject. I will clarify why source criticism in particular it is an important and relevant field for English teachers to focus on. I will do this by using concrete examples based on the English subject curriculum.

2.3.2 Source criticism in the English subject curriculum

We live in a globalized world, and it can be argued that the Internet is one of the main reasons why the world is so tightly woven together. As expressed by Lund (2009, p. 88), the Internet has led to the cancelation of limitations in time and space and has enabled us to cooperate across borders and cultures. The English language dominates on the Internet and in online communication (Crystal, 2006). It therefore serves as the lingua franca, being the language most of us use when communicating with people who do not have the same mother tongue as ourselves. This underlines the importance of the English language, and the English subject. According to Lund (2009, p. 93), being digital in the English subject does not mean digitalizing existing practices, but to participate in a critical manner in practices that are under development. The students need to be prepared for new, multimodal communicative practices, both in the public room, labor life and in the private sphere.

In the general part of the English subject curriculum, digital competence is described as the ability to use a varied selection of digital tools, media and resources to strengthen the language learning, communicate in English and acquire relevant knowledge in the English subject. It is also underlined that the use of digital tools can give opportunities to experience English texts in authentic situations. In addition, much of the general description of the key

competence is repeated in the subject curriculum.

There are specific competence aims concerning digital competence in the English subject. In the subject curriculum for lower-secondary, there are three competence aims that are directly linked to digital competence. Within the field of language learning, it is an aim to enable students to "select different digital resources and other aids and use them in an independent manner in own language learning". Within the field written communication, there are two competence aims which directly concern digital competence: "use digital tools and formal requirements for information processing, text production and communication" and "be familiar with protection of personal privacy and copyrights and chose and use content from different sources in a verifiable way" (KPR 2013a). The latter competence aim is the one with most importance in this thesis due to the focus on choosing and using sources in a verifiable way. In the following, I will come with some concrete examples to why it is particularly important to teach students how to be source critical in the English subject.

There is little doubt that there are far more online sources written in English than in Norwegian (Internet World Stats, 2016; W3Techs, 2017). Therefore, when working with various topics in the English subject, the students need to navigate through a great amount of information. Many of the websites, which usually are among the top hits based on a Google-search, might be unknown to the students due to their lack of experience with English sources. Wikipedia is probably the most known source for students because of the website's high ranking on search engines (Blikstad-Balas & Høgenes, 2014). The language in English Wikipedia pages is, however, not adapted to an educational context and therefore might be difficult to assess by students whose native language is not English. Using English online sources can therefore make the students feel unconfident in the learning process.

When reading a text which is not written in your mother tongue, it is evident that it is not only more difficult to understand the information, but also to assess the source's credibility. It is therefore important to give the students tools to use when navigating through English online sources, tools that are not solely based on language and understanding the content. Research actually shows that students' copy-paste strategies in connection to their school work do not necessarily have to be identical with plagiarism and thoughtless copying, but is used as a strategy to get an overview and create meaning in a massive amount of information (Rasmussen 2005, as cited in Lund, 2009, p. 95). Even though plagiarism is not in focus in this thesis, I argue that this example underlines the importance of strategies such as those mentioned in this paragraph.

Even though the English subject curriculum gives few guidelines in terms of which themes students should learn about in the subject during lower-secondary education, there are a few specific topics mentioned in competence aims in the field "culture, society and literature". One example is discussing and elaborating on the way people live and socialize in Norway and English-speaking countries. Another example is describing and reflecting on the situation of indigenous peoples living in English-speaking countries. Explaining features of history and geography in the USA and Great Britain is yet another example (KPR, 2013a). There is little doubt that the topics mentioned in these competence aims are comprehensive and demand different sources to be used, also online sources. Nevertheless, we should also pay attention to the verbs describing these competence aims; "discuss", "elaborate", "explain", "describe" and "reflect". It is a great task for a lower-secondary student to e.g., reflect upon the situation of indigenous peoples, and when searching for online information about indigenous peoples, he or she needs to understand and reflect over the content on different levels. "Correct" information in that context is so much more than checking whether names are spelled correctly and dates of events are accurate. Here, I claim that the importance of source criticism is of particular importance.

Based on the role of English in the world today, the complexity of the topics in the English curriculum and the fact that the competence aims consist of so much more than learning *about* something, I argue that it is of great importance to teach the students how to be critical towards online sources in the English subject. Furthermore, the challenge of reading sources, which are not written in one's mother tongue and the large amount of sources available in English, support this claim.

We can also perhaps conclude that digital competence and source criticism as expressed and presented in the curriculum do come across as quite unclear and complex areas. This has become quite evident over the last years. In an attempt to make the unclear content of the curriculum more concrete and understandable, Norwegian teachers have been asked to use a webpage called iktplan.no. This webpage and its content will be described and presented below.

2.3.3 Source criticism in iktplan.no

The Norwegian Centre for ICT in Education[3] has developed a plan in the form of a webpage called "iktplan.no" which can guide and support teachers in their work with developing students' digital competence. The plan is based on the curriculum and consists of competence aims, criteria, videos and other resources. Many Norwegian municipalities have developed their own version of this plan, amongst them Trondheim municipality (Trondheim ICT plan, 2016b) which is where I have conducted my research. This ICT plan is the one referred to throughout this thesis.

According to the ICT plan for Trondheim, the students should have acquired several competence aims when starting lower-secondary education. Examples of aims after year 7 is to make purposeful searches in different search engines and digital media and to know what can be published of other people's personal information (Trondheim ICT plan, 2016c). When it comes to source criticism, the plan states that after year 7 the students should be able to assess the credibility of websites using the framework "TONE". When translated into English "TONE" stands for reliability, objectivity, accuracy and relevance. The framework gives a structure for how to work with source criticism and helping the students develop strategies when assessing online sources (The Trondheim ICT plan, 2016a). All 8th graders should have some competence in assessing a website's credibility, assuming the schools have followed the ICT-plan.

Next I will shortly present what e.g. the Norwegian Centre for ICT and the Ministry of Education express about the role of source criticism in today's Norwegian school.

2.4 Source criticism in today's Norwegian school

ICT has been an area of focus in Norwegian schools since the mid 1990´s. As mentioned earlier, with the new curriculum from 2006 digital competence has also become a key competence and one of the five basic skills that are supposed to be integrated in all subject disciplines (The Norwegian Centre for ICT in Education, 2013, p. 31; UDIR, 2012). "Being digital" in a school context requires more from students, teachers and school leaders than being able to use digital tools, and includes having a conscious attitude towards digital tools

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[3] The Norwegian Centre for ICT in Education is governed by the Ministry of Education and Research and supports The Norwegian Directorate for Education and Training in their development of school practices within digital competence (The Norwegian Centre for ICT, 2016a).

as an aid to be used when suitable in the subjects. It is a new way of acting, thinking, expressing oneself and relating to the world (Otnes, 2009, p. 3). However, results from international tests like PISA, both from 2009 and 2015, show that despite the wide use of digital tools among today's young, their experiences are not specifically connected to school related digital competence. 15 years olds are good at using for example social media and games, but this has little to do with skills in production of academic content and pedagogical use of tools for learning in the school subjects (OECD, 2015, p. 15; The Norwegian Centre for ICT in Education, 2013, pp. 33-34).

According to The Norwegian Centre for ICT in Education (2013, pp. 33-34), an important part of digital competence is to be able to assess sources and the usefulness of information. Therefore, it is not sufficient to be a passive consumer of entertainment as a student in today's digital school. OECD (2015) states that "schools can educate students to become critical consumers of Internet services and electronic media, helping them to make informed choices and avoid harmful behaviours" (p. 16). Moreover, it is also underlined in the report that since we live in a world that rapidly embraces digital technology as its main medium of communication, students need to be able to navigate through different online texts in a critical manner (OECD, 2015).

In 2015, the Ministry of Education published a Norwegian Governmental Report (NOU) concerning the Norwegian school of the future (The Ministry of Education and Research, 2015). The committee behind the report states that it finds digital competence to be an important part of all school disciplines, but also sees it as a cross-curricular competence. In the report, digital competence is also stated to be an important part of the ability to think critically. Assessing information from digital texts is underlined as the most important area of critical thinking in today's school. The report stresses the importance of individuals undertaking critical assessments in today's complex society with its great amount of information. It says that some aspects of critical thinking will gain importance in the near future due to digitalization and the easy access to information, and the committee stresses the fact that digital information is published by both individuals and organizations that do not focus on disseminating correct information. Therefore, the ability to critically judge information is said to be important for the individual but also in a democratic perspective.

Based on the above mentioned, we can state that the ambitions are high in terms of developing source criticism amongst today's students. In the next section, I will present some information about Norwegian students' measured level of competence within source criticism.

2.4.1 Norwegian students' digital reading skills

According to PISA, Programme for International Student Assessment, there is a stable mean in performance in digital reading amongst Norwegian 9th graders from 2009 to 2012 (OECD, 2012, p. 88). In the official OECD-report presenting PISA-results within digital skills from 2012 it is claimed that there is a strong connection between digital reading performance and students' quality of navigation, which includes assessing the credibility of sources (OECD, 2012, p. 106). In the following, I will present reflections by Frønes and Narvhus (2012) concerning Norwegian lower-secondary students' level of source criticism, reflections based on the 2009 PISA digital reading test. I find this source relevant to include despite the fact that the PISA-results discussed are from 2009. The main reason is the already mentioned stable mean in the students' performance in digital reading. In addition, the field can be criticized for not being updated, and Frønes and Narvhus (2012) is one of few sources on the topic.

The analysis done by Frønes and Narvhus (2012) show that many Norwegian students have a naïve perception of the online texts used as examples in the test. The students have difficulties determining if a source is reliable, objective, accurate and relevant, being the same terms used in the framework TONE (Trondheim ICT plan, 2016a). They therefore conclude that there is a great gap between the students' competence and what the society demands in terms of source criticism. Therefore, according to Frønes and Narvhus (2012), the schools have a challenging task in front of them in terms of trying to cover this gap. They claim that the way to do that is to make sure the students develop a competence in source criticism adjusted to digital media before they are finished with their lower-secondary education.

Based on the results from PISA 2009, Frønes and Narvhus (2012) conclude that only one fourth of all the students ask critical questions when meeting an online source. They therefore state that source criticism does not seem to be very evident in students' awareness, despite the fact that the curriculum states that students are to learn how to assess who the sender or author of a website is, how credible the source is and how and where the information can be used.

Among many findings, Frønes and Narvhus (2012) say that they see an unexpected finding in the PISA results: What schools the students attend seems to be of greater importance for the results in this digital reading test than in former PISA-research where the students have read on paper. They are therefore curious in terms of finding out what systematic differences one can find in the schools, a question not answered in their research and article. This is supported

by Hatlevik and Christophersen (2013) who in their study amongst Norwegian upper secondary students found variations between classes, stating that "school class accounts for a certain part of the variability in digital competence" (p. 246). These are important methodological aspects to take into consideration since I have designed a study on this topic including students from three different schools in the sample.

In the next part of this chapter, I will focus on previous research on the field of source criticism. The studies presented are studies that I have located through web searches, a process which I will shortly describe in the following.

2.5 Database searches

I used NTNU's search engine for literature, Oria, to find most of the research articles which are referred to in this thesis. However, Oria has a very big archive and it was not easy to find exactly what I was searching for. I started out my search by simply using the expression "source criticism", since that was the term I planned to use in my own thesis. As I started reading articles, I quickly saw that studies could be relevant even though quite different expressions were used to describe the field. Therefore, several keywords turned out to be just as applicable in the process of finding relevant articles. Examples are source evaluation, digital literacy, digital competence, source reliability and intertext model. This made me realize that the field of research is much bigger than I had assumed.

A simple search on Oria using the keyword "source criticism" gives over 500 000 hits. All of these do of course not focus on source criticism in a school context or with the same meaning of the word as I was searching for. I therefore quickly started to use the advanced search tool on Oria to add more tags, trying to narrow down the number of hits. I used some time trying different combinations by adding words like "school", "Norway", "students" and "Wikipedia". I did the same procedure using the already mentioned expressions equivalent to source criticism. Occasionally this was successful in terms of finding relevant researchers and studies, but due to the large database in Oria, I did not find this the most efficient method to use.

After having used some time searching for articles by combining keywords, I started using the theory chapters and reference lists in relevant research articles to see which studies it was referred to. This was a process I often found more relevant than reading the article itself. A few researchers and their studies were also suggested by my supervisor. And as I spent more

time reading research articles, I saw that quite a few researchers, both Norwegian and foreign, seemed to be mentioned in most research articles within the field of source criticism, e.g. Blikstad-Balas, Calvani, Hatlevik and Bråten. After a couple of months of reading research articles I therefore became quite confident that I had found good and relevant studies which covered the most essential research within the field.

Next, I will present the research studies concerning source criticism which I found most relevant in connection to my study.

2.6 Previous research

2.6.1 Students' focus on source credibility

There are several examples of research indicating that source credibility might not be in focus when students choose Internet sources to be used in their school work. Metzger, Flanagin and Zwarun (2003) were some of the first to take a closer look at the nature of students' web usage. Their research showed that the students relied on the Internet for academic purposes and more so than the general adult population. The research also revealed that using online sources was more important to the students in order to add sources to their source list, improving grades and saving time than improving the quality of their work.

A more recent example is List, Grossnickle and Alexander (2016) who have carried out research on undergraduate students. The aim was to explore their justification for source selection, whether they emphasized epistemic justifications, focusing on sources' reliability and credibility, or non-epistemic, focusing on relevance and access when choosing sources. They "were interested in identifying the factors undergraduates considered when selecting sources and when determining which sources might meet their needs" (p. 24). The research showed that the undergraduates used a source's title and summary as a basis for their judgement of the source rather than the other criteria. List et al.'s (2016) research showed that the students "produced a large number of and variety of justifications for source selection" (p. 47). Their research showed that the students mostly justified their choice of sources based on non-epistemic justification rather than epistemic, being more occupied with access and relevance than reliability and credibility. The type of questions asked in the tasks did not seem

to significantly influence the students' choice of sources, nor their justifications. According to List et al. (2016), other research also suggests that students, from upper elementary to undergraduate students, rely on surface cues when choosing sources, selecting on a basis of presentation rather than content.

It must be noted that most of the studies focusing on students' justifications when using online sources in their school work focus on college students and little research is done nationally and internationally on lower-secondary students.

2.6.2 Students' use of Wikipedia

Despite the almost endless number of sources of information on the Internet Wikipedia has become an apparent part of educational settings that previously were dominated by textbooks as a source for information. Wikipedia is, however, seen as controversial in educational settings, among several reasons due to the untraditional knowledge production practices. Several studies carried out the last years have focused on the use of Wikipedia. A quite recent Norwegian study researched 9th graders and their use and trust of Wikipedia, text books and digital resources from publishers. Hatlevik (2016) states that Norwegian 9th graders use Wikipedia for finding information online to a larger extent than newspapers and publisher's websites. At the same time only 16% of the students said that they "always" trust information from Wikipedia. 55% report that they "often" trust it. A much larger percentage of the students say that they "always" trust information from textbooks and textbook publishers´ websites (p. 211). Based on this, Hatlevik (2016) states that there is not "a consistent relationship between use and trust of information" (p. 216). Hatlevik (2016) claims that the reason why students still tend to use Wikipedia might be because of "the very easy access and use" (p. 215). He states that there is a need for further research about students´ use and trust in resources. Hatlevik (2016) also asks for research that can give answers to how schools and teachers can work in order to avoid a digital gap, a gap that seems evident based on his research.

Blikstad-Balas and Hvistendahl (2013) carried out another Norwegian study concerning students' use of Wikipedia. They have researched upper secondary students' digital strategies and shortcuts, and claim that their study shows that "school tasks tend to ask for knowledge *about* something, rather than the deeper and more complex knowledge *of* something" (p. 43),

Therefore, the authors conclude that it should not be surprising that Wikipedia is a popular site to find knowledge about school topics. The students express that they see Wikipedia as easy to use and read in addition to being "fast", providing them with the information they are searching for. They do, however, express that a disadvantage is the fact that you can never be completely sure if the information is reliable. They also said that Wikipedia had a bad reputation and that many of the teachers had a negative attitude toward it. Blikstad-Balas and Hvistendahl (2013) therefore conclude that "the majority of students do not perceive Wikipedia as an intended school source for information" (p. 39).

Norwegian students are not the only ones who seem to favor using Wikipedia as a source. Lim (2009) researched how and why American college students use Wikipedia. The results showed that all of the students who participated in the survey had used Wikipedia. However, they reported that they did not expect to find the best information when using this source and were to some extent skeptical towards the quality. This was in contrast to the students' positive past experiences with Wikipedia. Lim (2009) says that students might find the benefits of Wikipedia greater than the risks. Therefore, the research by Lim (2009) in many ways support the research findings and reflections in both Hatlevik (2016) and Blikstad-Balas and Hvistendahl (2013).

2.6.3 Students' level of competence

Several studies conclude that students, at different school levels, need more training in source criticism. An Italian study by Calvani, Fini, Ranieri and Picci (2012) concludes that we might be too optimistic when it comes to younger generations' digital competence when we take a closer look at the critical cognitive and socio-ethical dimensions. They researched 14-16 year olds from 34 Italian schools, and the results showed that adolescents are not able to deal critically with digital information in the way that they do not spontaneously doubt Internet sources' reliability. These claims are supported by Calvani, Fini and Ranieri (2010) who conclude that adolescents master many technological activities, but mostly the ones that require less demanding cognitive processes, including source criticism. Kiili, Laurinen and Marttunen (2008) investigated Finish upper secondary students and how they evaluate Internet sources. The students were given an authentic task, having them search for information online to be used in an essay. The research showed that the students were, to a low extent, critical towards Internet sources in terms of credibility. Evaluation of relevance

actually seemed more necessary to the students than credibility. This is supported by the study by Metzger et al. (2003) claiming that students assess a webpage's credibility being quite "uninformed", concluding that "there is cause to be concerned about students' use of the Web as an information resource" (pp. 287-288).

An example of a Norwegian study focusing on students' critical level in connection to online sources is Strømsø and Bråten (2014). This is yet another research article that concludes with students needing more training in sourcing skills. The study is based on research carried out on Norwegian state university students. Several areas within source skills were of interest, amongst them wanting to see whether the students just read the information or also evaluated the content. The researchers concluded that the students were not fully in a process of constructing an intertext model while reading, meaning that they were not linking different web documents nor having a clear overview over who said what. Strømsø and Bråten (2014) therefore claim that "student sourcing while reading should also be of concern to teachers" (p. 108), not only citation and referencing techniques. Strømsø and Bråten (2014) stress the importance of today's young developing the ability to be critical towards web-based sources:

> Reasons for focusing on student sourcing and citation skills may be normative or related to student processing and understanding of multiple web documents. Normative reasons concern student adoption of citation conventions in the academic world. However, students also need to develop sourcing skills to evaluate whom or what to trust when different sources present conflicting information. (Strømsø & Bråten, 2014, p. 95)

This means that Strømsø and Bråten (2014) recognize the importance of source criticism in terms of evaluating the content of e.g. webpages to be used in school work.

The aim of another Norwegian study by Hatlevik and Christophersen (2013) was to explore the school oriented digital competence amongst adolescents when they enter upper secondary education and to see which factors affect their level of competence. Over 4000 students from several upper secondary schools in a Norwegian municipality participated in the study, answering an online-questionnaire with multiple-choice questions. The results showed, for example, that a strong cultural capital (e.g. family being concerned with knowledge and education) influenced the students' digital competence in a positive direction. There were, however, no gender differences. The conclusion made by the researchers is that "students from upper secondary education is not a uniform group" (p. 246), meaning that there was a wide variation in the students' results.

2.6.4 Development of source criticism

Research shows that source criticism can be taught and developed through different tasks. Sanchez, Wiley and Goldman (2006) researched whether SEEK (Sources, Evidence, Explanations, Knowledge), a training unit created to help American students develop a critical way of thinking when searching for information online, had an effect. This study looked at the effectiveness of SEEK, seeing how training students in evaluating the reliability and usefulness of Internet sources affected the learning of a new topic when doing Internet research tasks. Students who were given SEEK training in connection to an Internet information task seemed to recognize which sources were reliable to a greater extent. In addition, they were able to transfer the SEEK skills to another task given several days after the training. The researchers therefore conclude with SEEK accomplishing what it was designed for.

Kammerer, Meier and Stahl (2016) conducted an intervention study testing the effect of source prompts during a learning process including the use of Internet sources. The test group consisted of 45 German ninth graders, wanting to see whether such source prompts influences the way they mentally perceive sources. The results showed that ninth graders are able to remember and classify websites when asked to do so, meaning that source prompts influence the students' intertext model formation.

Blikstad-Balas and Hvistendahl (2013, pp. 44-45) stress the importance of using multiple sources of text when teaching students how to develop critical and digital literacies. According to the authors, giving the students tasks demanding quick descriptive answers do not develop an approach developing critical literacy online. Lajoie and Azevo (2006) state that when students get tasks to find information *about* something they will search for information that they can copy or reproduce in some way, and Internet search engines support this type search for factual knowledge (Lajoie & Azevo, 2006, in Blikstad-Balas & Hvistendahl 2013, p. 36).

The studies mentioned in this section show that there are methods proven to contribute in the process of developing online source criticism amongst students. However, research findings indicate that online source criticism does not have a widespread focus in Norwegian students' teaching. According to Blikstad-Balas and Hvistendahl (2013, pp. 34-35), research shows that most teachers, among them Norwegian teachers, use textbooks as the main source of

information in their classrooms. The authors claim that this leads to students being used to reading text material that is quality checked on beforehand in terms of content. Blikstad-Balas and Hvistendahl (2013) refer to The Norwegian Monitor survey from 2012 stating that Norwegian secondary students trust the textbook publisher's website the most, but interestingly enough that is also the online source they use the least. Wikipedia, the online source the students trust the least, is according to the study the one they use the most. Based on this the authors conclude that it should be seen as a challenge that teachers and students have different preferences in terms of information sources. The textbook has been seen as a safe source for information due to the clear educational purpose and the fact that they are evaluated by professionals. Internet texts are, however, not always intended for specific age groups or adapted in terms of content and amount. I argue that the above mentioned underlines the importance of working with online source criticism in a school context.

Based on the information and research presented in this chapter, I will in the following attempt to position my own research within the field of source criticism.

2.7 Positioning own research

It is interesting to see that quite a lot of research on source criticism amongst students has been carried out, both in Norway and internationally. However, there is little research based on the students' own expressed thoughts and justifications in connection the use of sources in school work. In addition, there is no research on this connected to the English school subject. Based on the studies mentioned in this chapter it is evident that most studies concern students who are in upper secondary education or college level. There is little research to find which concerns students as young as 8th graders. Norwegian students starting lower-secondary education are expected to have a certain level of source criticism in connection to online sources. However, this aspect is not fully researched other than being included as a topic in bigger national and international surveys on digital skills amongst students and teachers (e.g. the Norwegian Monitor survey[4] and the International ICILS study[5]). Sanchez et al. (2006) include several interesting reflections in their article, both concerning students' challenges with online information and the importance of developing a better sense of online source criticism amongst students:

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[4] The Norwegian Centre for ICT in Education (2016b).
[5] Frallion, Ainley, Schulz, Friedman and Gebhardt (2014) and Hatlevik and Throndsen (2015).

Despite the mass of worthwhile information contained on the internet, the information returned from keyword searches are often fraught with irrelevant, misleading information. Encouraging potential learners to actively evaluate the motivations of authors who create this information, the nature of the information returned, and also how this information relates to their prior knowledge, should enable learners to better 'sift' through the overwhelming amount of information (both relevant and not) to get to facts that they actually need. (Sanshez et al., 2006, p. 33)

I argue that this quote, and the limited amount of research on the field, supports further research on students' thoughts and skills concerning online source criticism. I also argue that in order to enable students to evaluate the information they find online in a better way than they do today, as expressed by Sanshez et al. (2006), it is evident that we get an insight into their current knowledge and strategies. In that way, teachers and others with an influence on the development of students' online source criticism know what they have as a starting point and basis. In addition, according to The Norwegian Centre for ICT in Education (2013, p. 22), it is important to collect information about the status of digital competence in today's school in order to get a correct impression of the situation and which challenges we face. And as mentioned, Frønes and Narvhus (2012) claim that the way to cover the gap between students' competence and what the society demands in terms of source criticism is to develop a competence in source criticism adjusted to digital media before they are finished with their lower-secondary education. Hopefully, I can contribute to covering this gap by presenting my research and coming up with suggestions on how teachers should work with source criticism in the English subject based on knowledge about the students' current knowledge and level of reflection in connection to source criticism.

In this chapter, I have given particular attention to the concepts source criticism and online source criticism and looked at the position they have in today's Norwegian school. Test results and previous research concerning online source criticism has also been presented, giving me a foundation for positioning my own research. In the following chapter I will focus on the overall theoretical framing for my study.

Chapter 3: Theory

3.1 Introduction

In this chapter, I will present the overall theoretical framing for this thesis. I base the study on a social constructivist view on learning, having a focus on Vygotsky's zone of proximal development. Interview is the main method of collecting data in this research project and I will therefore shortly present theory and reflections about interview as a method within social constructivism as well.

3.2 Epistemology

Qualitative research is most often located within interpretative research where reality is seen as socially constructed, meaning there is no single reality that can be observed. Rather there are several realities and interpretations of a single event. Therefore, interpretative researchers do not "find" knowledge, but construct it, whereof the term "constructivism" (Merriam, 2009, pp. 8-9). According to Creswell (2009), researchers following a constructivist perspective seek to understand rather than determine, and have a focus on multiple participant meanings in a social and historical construct. The researcher is to rely on the participants' views and focus on the contexts in which they live and work to understand their social and historical settings (pp. 6-8).

3.2.1 Learning in a socio-cultural perspective

Learning has an important position in our culture and the interest for understanding how we can improve the process of learning is great. However, there will never be one exact answer to how human beings learn (Säljö, 2000, pp. 1-2). Several traditions and perspectives on learning have developed, supporting different ways of understanding how we learn. The epistemological standpoint in this thesis is within a sociocultural perspective, and I will here shortly describe this tradition and present Vygotsky´s zone of proximal development.

Human beings are unique compared to other species due to our ability to share experiences with each other. We can describe the world, formulate experiences and share them. We can learn from each other. The socio-cultural perspective on learning and development is based on Lev S. Vygotsky´s theories, whose point of departure was that the human being was a biological, social, cultural and historical creature. He stated that how we learn depends on

what part these aspects play and how they work together. Despite of biological prerequisites, the human being can develop and use tools, both physical and intellectual, which mediate our actions. Intellectual tools and categories developed in society enable us to describe, analyze and communicate about the world around us (Säljö, 2016, pp. 105-108).

In institutions like the school, we use linguistic categories which mediate the world in a way that is relevant for that context (Bowker and Star, 2000 in Säljö, 2016; Mäkitalo and Säljö, 2002 in Säljö, 2016, p. 109). We need to be confident in using the specific mediating tools to be able to be active in these institutions (Säljö, 2016, p. 109). I argue that students need intellectual tools and categories in order to make contemplated decisions when choosing Internet sources to be used in their school work. These tools can be developed through communication between teachers and students by using what Vygotsky called "the tools of tools"; the human language (Säljö, 2016, p. 111). By putting into words what is important to reflect over and look for when deciding whether an Internet source is reliable or not, students develop intellectual tools to be used when they work individually with Internet sources in their school work. I argue that this type of learning, led by a competent teacher, takes place in what is called "the zone of proximal development".

3.2.2 Vygotsky's Zone of proximal development

According to Vygotsky, it is the adult or "the more competent peer" who supports a child on its way to knowledge which is relevant in a culture (Säljö, 2016, p. 118). The following figure (Figure 1) illustrates how support and insight helps the learner reach knowledge which is outside their own understanding, or in "the zone of proximal development". For example, a competent teacher can support a student in his or her process of becoming more critical towards online sources: The teacher builds on what knowledge and skills the student already has in connection to source criticism, having to know what type of tasks he or she can complete without guidance ("What the learner can do"). When the teacher supports and guides the student in the process of learning new online source criticism strategies, the student will be able to reach knowledge which is outside his or her basic understanding, being able to complete tasks with guidance ("The zone of proximal development"). The teacher therefore helps the student move from one zone to the next, and in that way the student gradually develops the ability to successfully assess online sources unaided. There is knowledge about online source criticism which the student cannot yet reach, even with support from the teacher ("What the learner cannot do").

What the learner cannot do

The Zone of Proximal Development

What the learner can do
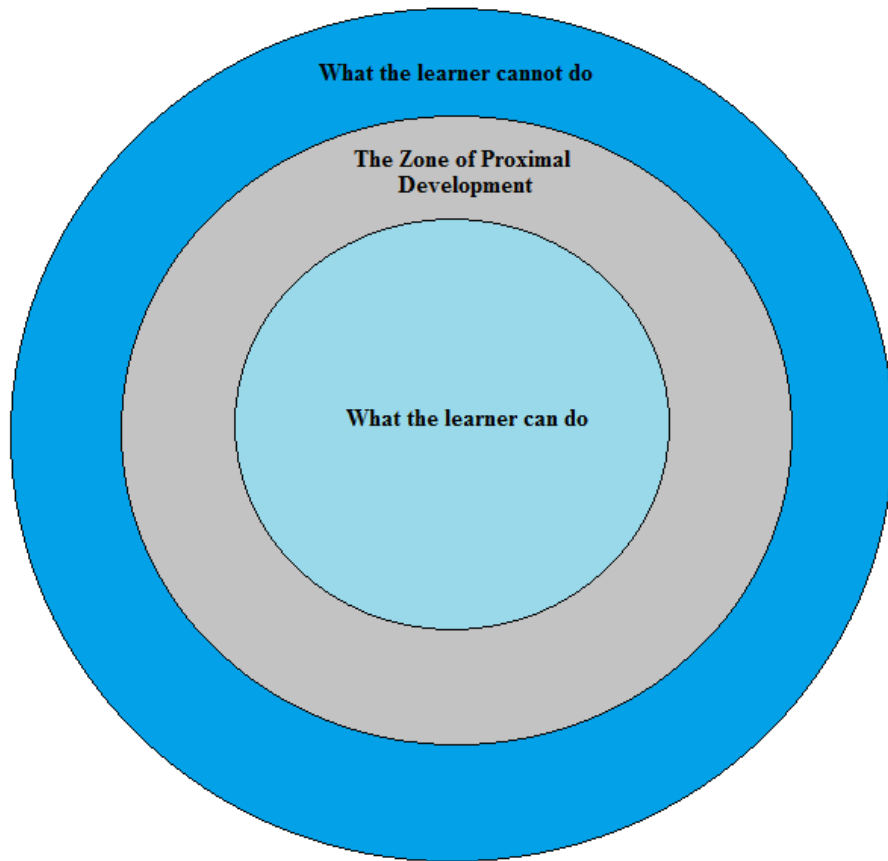
Figure 1: Vygotsky´s Zone of Proximal Development

A starting point for this thesis and its design was the presumption that it is important for teachers to know the students' current level of source criticism in the English subject in order to help the students develop this competence further. I use Vygotsky's zone of proximal development to support my assumption that when teachers know what the students have learned at elementary school or in other setting concerning source criticism, the teacher can more easily help the students learn more, by knowing what to build on in the learning process. By building on their already existing knowledge the teacher can support the students and make them reach the zone of proximal development, having them understand more and develop intellectual tools.

3.2.3 The teacher as "the more competent peer"

In order for the teacher to function as the more competent peer in the students' learning process of becoming more critical towards Internet sources in the ESL classroom, he or she needs to hold a certain level of competence. Guðmundsdóttir and Ottestad (2016, pp. 71-72) use the term "professional digital competence" (my translation) to describe teachers' use of

ICT in their profession. They argue that this competence consists of three main dimensions: generic digital competence, professional and didactical digital competence and professionally oriented digital competence. The first dimension describes the general knowledge and skills which teachers should acquire to function as teachers in digital surroundings across subjects. These skills are closely related to general digital competence. Digital communication and digital judgement are examples of elements which take place within this dimension, being basic components in all use of digital media and tools in the information society. The second dimension covers what is characteristic for ICT within the subjects and teaching in various academic topics with digital tools. Within the subjects, we find the combination of the functions within digital tools and the pedagogical objectives. The third dimension describes digital traits in the teacher profession in an expanded sense, meaning what the teachers need of digital competence in in different parts of their work. Examples are planning lessons, carrying out different types of assessment of students' competence and communicating with colleagues, parents and other groups of people. Teachers also need knowledge about how they can apply their competence, skills and various digital tools in competence development in their own professional practice. In short, Guðmundsdóttir and Ottestad (2016) describe "professional digital competence" as the complex competence they see as important for teachers to have in their own professional development and for helping the students develop their basic digital skills as described in the curriculum. The latter element is particularly important in this context, emphasising the role of the teacher as "the more competent peer".

Säljö (2016, p. 162) states that within a sociocultural perspective it is easy to see that adults, and particularly teachers, play a crucial role as a connection between young persons´ conception of the world and all the experience and knowledge which takes place in the collective memory. As presented by Vygotsky, the teacher contributes to a child going beyond its own personal experiences, being able to take part in a creating of meaning developed in society (Säljö, 2016, p. 162). Using the focus of this thesis as an example, teachers try to help students participate in the discussions and reflections concerning source criticism, both inside and outside school.

3.2.4 The interview within social constructionism

As mentioned in the introduction of this chapter and later in the methods chapter, interview is the main method of collecting data in this research project. However, the method should receive some attention in connection to the theoretical framing due to the socio-cultural and

constructivist nature of this project, focusing on knowledge constructed through dialogue. The interview is a conversational practice which has been developed for centuries without any intervention from epistemological discussions. Even so, a clarification of a position might give an understanding of one's practice of interviewing (Kvale & Brinkmann, 2009, p. 50). Kvale and Brinkmann (2009) use two contrasting metaphors to illustrate two different epistemological conceptions of interviewing as a process: "The interviewer as a miner" illustrates interviewing as *knowledge collection*, accessing the participant´s pre-existing knowledge or views (p. 48). In many ways, this view falls within a positivist or post-positivist research model which sees knowledge as "given" (Yeo, Legard, Keegan, Ward, Nicholls & Lewis, 2014, p. 179). "The interviewer as a traveler", however, illustrates interviewing as *knowledge construction,* seeing knowledge as something that is yet to be created (Kvale & Brinkmann, 2009, p. 49). This way of looking at knowledge, with both the interviewee and researcher as active participants in creating the knowledge, fits into a constructivist research model (Yeo et al., 2014, p. 179).

In this research project, I choose to see myself as "a traveler" (Kvale & Brinkmann, 2009, p. 49), seeing knowledge as something yet to be created. Interviewing as knowledge construction can be placed within constructionism, where the basic thought is that knowledge is something which is constructed by an individual through activity (Säljö, 2016, p. 157). Dewey and his sociocultural perspective belongs within this tradition, arguing that knowledge arises from action and communication and is executed through action. Dewey states that it is when you engage actively in a problem that you learn and make experiences (Säljö, 2016, p. 160). Since this research project aims to map the students' knowledge through their own actions, seen in the classroom, the interview process and through written text, I argue that this research study is clearly positioned within a constructivist and socio-cultural field.

3.3 Theoretical perspective: Phenomenology

Phenomenological research is a strategy of inquiry where the researcher tries to identify the essence of human experiences in connection to a phenomenon through the way it is described by participants. A small number of subjects are studied and the researcher sets aside his or her own experiences, wanting to be able to truly understand the experiences of the participants in the study (Creswell, 2009, p. 13)

The focus on understanding lived experiences makes phenomenology a philosophy as well as a method (Creswell, 2009, p. 13). Phenomenology was founded by the German philosopher Edmund Husserl at the beginning of the 20th century, and has later been expanded and developed in different directions by e.g. Martin Heidegger, Jean-Paul Sartre and Maurice Merleau-Ponty. At early stages, phenomenology had a focus on consciousness and experience and later included the human life world and historical contexts. This has been a widespread approach to be used in qualitative research, and in general, we can say that within phenomenology there is an interest in people's own experiences, wanting to describe their actual perceptions of a phenomenon. In connection to qualitative interviews, phenomenology has been important in terms of how we should understand what is said by the interviewee (Kvale & Brinkmann, 2009, p. 26).

The research project reported in this thesis has a phenomenological approach, an approach which states that we must understand the human being in order to understand the world (Johannessen, Tufte & Christoffersen, 2010, pp. 82-83). According to Johannessen et al. (2010), "meaning" is a key-word in a phenomenological approach since the researchers wishes to understand the meaning of a phenomenon through the eyes of a group of people. The phenomenon must also be seen in light of the context in which it occurs, like a Norwegian lower-secondary school, and the aim is to get an increased understanding of and insight into the lifeworld of others such as Norwegian lower-secondary students studying English.

In this chapter, I have presented the overall theoretical framing for this thesis. In the next chapter, I will give an overview over the thesis' methodology and analysis.

Chapter 4: Method and analysis

4.1 Introduction

Previous chapters have focused on giving an overview over the field of source criticism as well as presenting the theoretical basis for the thesis. This chapter outlines the objective of this study and describes the qualitative research design chosen to find answers to the objective. The chapter therefore gives an overview over methodology, research framework, the process of participant selection, data collection and analysis. In addition, ethical considerations and the level of reliability and trustworthiness will be discussed.

4.2 Aim and scope of research

The aim of this study was to get an insight into students' level of reflection in connection to the use of Internet sources in the ESL classroom. The research was conducted in an 8th grade with students aged 12-13 at a Norwegian lower-secondary school in the city Trondheim, Norway.

4.2.1 Rationale

I was never in doubt about wanting to use a qualitative method, more specifically in-depth individual interviews, in my research. The reason for that is the wish to get a deep insight into the students' mindset and thoughts in connection to the topic. I became more confident in my choice after getting an overview of previous research on the field which seems to be mostly based on quantitative research in the form of questionnaires and to a certain degree qualitative research in the form of observation (e.g. Lim, 2009; Hatlevik, 2016). Lower-secondary students' own thoughts concerning the use of Internet sources is a field of research barely explored, and according to Johanson and Christensen (2014) "qualitative research is used when little is known about a topic or phenomenon and when one wants to discover or learn more about it" (p. 33). Therefore, to explore the little known phenomenon of source criticism amongst Norwegian lower-secondary students and the English subject, qualitative research methods seemed appropriate for this type of project.

4.3 Qualitative design

It is difficult to clearly define qualitative research. There is a great diversity in methods and disciplines, but all of them are interpretative, wanting to research a phenomenon "from the interior" (Flick 2009, as cited in Ormston, Spencer, Barnard & Snape, 2014, p. 3). Qualitative research takes the perspective of the research participants, using words and images rather than numbers. It therefore has a flexible nature and focuses on "what", "why" and "how" questions rather than finding the answer to "how many" (Ormston et al., 2014, p. 3). Said in the words of Merriam (2009) "qualitative researchers are interested in understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences" (p. 5). A qualitative approach therefore suits the exploratory objective of this study.

Ormston et al. (2014) have formulated several common characteristics of qualitative research, whereof one in particular suits this study:

> Aims and objectives that are directed at providing an in-depth and interpreted understanding of the social world of research participants by learning about the sense they make of their social and material circumstances, their experiences, perspectives and histories. (Ormston et al, 2014, p. 4)

Interview is a common method to use to fulfill the characteristics mentioned in the quote. In addition to interviews, I have observed the students during their research process, which has provided additional data about their approach when using online sources in the ESL classroom. In addition, their assignment and the lists of sources are used as documentation, giving written data to be analyzed. Though a "mixed method" approach often refers to a combination of qualitative and quantitative methods, one can also use several qualitative methods to bring insight to a study (Ritchie & Ormston, 2014, p. 44). Interviews, observation and document analysis are often conducted to triangulate findings and to substantiate findings (Merriam, 2009, p. 119). These three methods and the data collection as a whole will be described later in this chapter.

4.4 Framework for research

In this section I will outline the framework for the research study. The following model is designed as a flow chart, presenting the process in which the research has taken place. The initial process was selecting the students who were to participate in the study. Then the process of collecting data began, a process consisting of observation, interviews and

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document analysis. The interviews were transcribed, a process generating documents that created the basis for the development of categories. As the flow chart (Figure 2) shows, the categories together with the observation notes and document analysis make out the data material for this thesis.
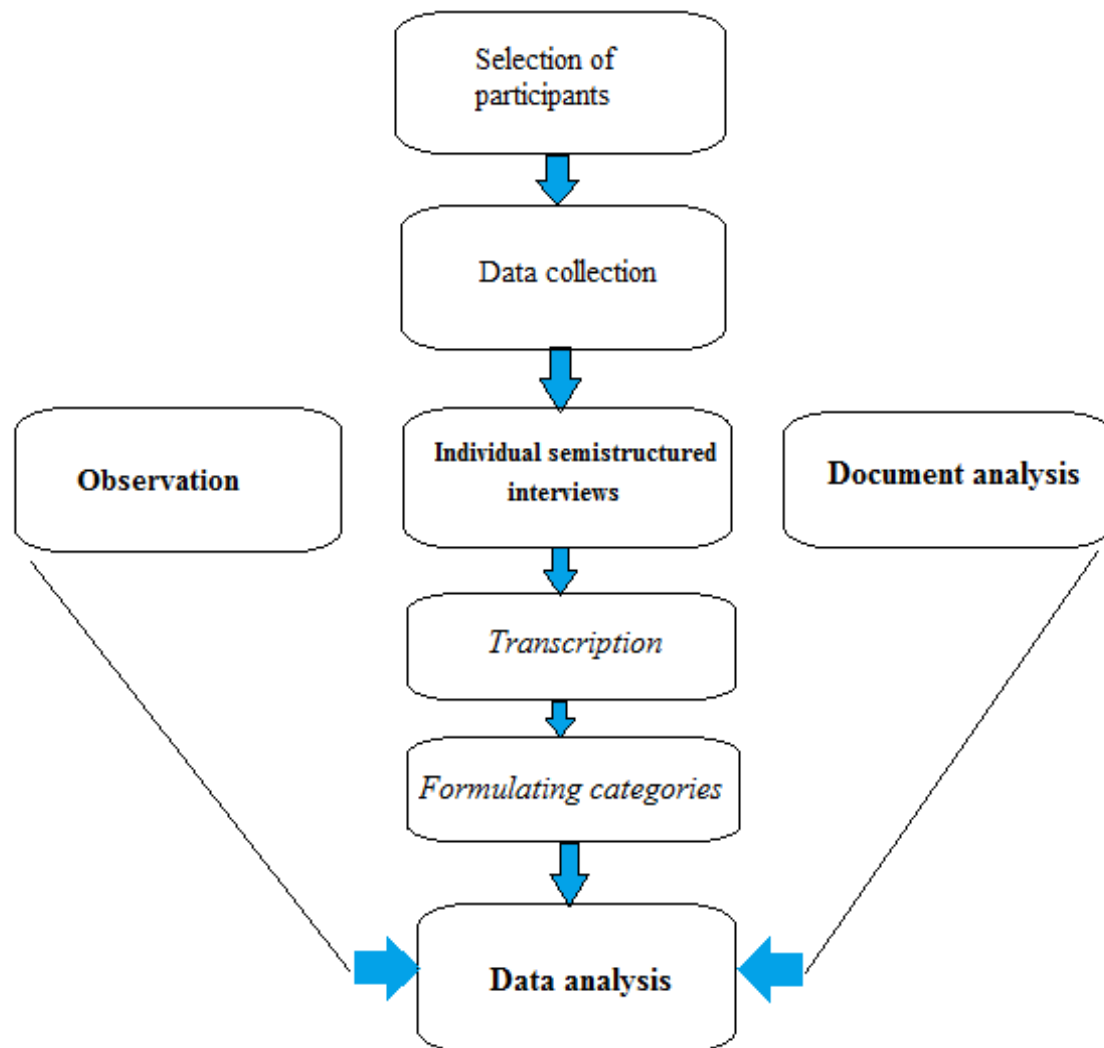

Figure 2: Flow chart presenting the research process.

4.4.1 Resources and timeframe of the study

The following was required in order to carry out this study:

1) Access to 8th grade students, both during their English classes and individually during interviews

2) The opportunity to influence the content of the students' English classes during a short period of time

3) An audio recording device in order to record the interviews

The following list created a guideline in terms of milestones needed to be reached in order to structure and finish the study within a year:

1) Initial topic chosen (Summer 2016)

2) Participant selection and request (August 2016)

3) Observation during English lessons (September 2016)

4) Creation of interview guides and interviewing participants (October 2016)

5) Transcription of interviews (October 2016)

6) Focus on theory and method (November/December 2016)

7) Analyzation of data (Winter 2017)

8) Finalization of thesis (Spring 2017)

In order to conduct my research, I needed to create a written task in the English subject where the students had to use online sources for information. My colleagues and I had earlier in the school year decided that we wished to focus on the American presidential election during the fall, a topic where it is actually essential to use online sources. It was satisfying for me that I was able to create a task which was relevant for the research in addition to being a natural part of the original subject plan. In order to formulate a task that was age appropriate, the purpose of the task and type of text was specified. The students were to write a news article to be published in Aftenposten Junior[6] about the presidential election in the USA. The content was to be suitable for children aged 8-12, including information about the election which was easy for them to understand (Appendix A). One of the assessment criteria was that the text should be written in their own words, not copying directly from the sources. Other than that, it was

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[6] A weekly newspaper for children aged 8-12, covering news from Norway and the world in a way which children can understand. Aftenposten (2014). *Junior vokser mest.* Retrieved from http://www.aftenposten.no/kultur/Junior-vokser-mest-95164b.html 13.05.2017.

not specified how the students were to use online sources, not in the task itself nor by the teachers in the writing process. Therefore, I argue that none of the guidelines given to the students could disturb the process of collecting valid data.

4.5 Participant selection

In the early stages of the research, I decided to intentionally select participants for my research because the students at the lower-secondary school in the research come from three different elementary schools. Since the aim was to see what the students have learned about the use of online sources in the ESL classroom before starting lower-secondary education, it was natural to include students from all three schools. In addition, I wanted to include both boys and girls to create a balance between the sexes, and therefore chose one boy and one girl from each elementary school, ending up with six participants in total ($N = 6$).

This approach in choosing participants for my research can in many ways fall under the label *purposive sampling* (Patton, 2015, p. 264). Purposive sampling is selecting members for research to give details about the topic the researcher wants to study. There is a range of approaches to purposive sampling, depending on what the study wants to cover (Ritchie, Lewis, Elam, Tennant & Rahim, 2014, pp. 113-114). One of the approaches mentioned by Ritchie et al. (2014, p. 114) is *stratified purposive sampling*, where the participants are chosen in order to give a rather homogeneous group but variations so that subgroups can be compared. This approach suits the sampling in this study since the choice of participants can lead to information about the three different elementary schools and differences between genders.

It was of importance to choose students who were at a medium to high language proficiency level in written English. I argue for this based on the fact that students on a low academic level often have other challenges, for example carrying out written tasks and having a meta-reflection concerning their own learning. Based on observations in class and student hand-ins the first weeks of the school year, I was able to see who were relevant for the research in terms of level in written English.

The aim was to include students from one or two groups in 8th grade, groups where I was not the course instructor being responsible for teaching and assessing the students. In order to fulfill all the criteria mentioned above, however, I had to select students from three different groups in 8th grade, me being the course instructor in one of them. It must be underlined that I

function as a teacher for the other participants as well, taking part in their English classes in one of two lessons during a week. Therefore, I argue that the fact that I am the course instructor for two of the students was of little relevance compared to the relation I have with the four other students.

4.5.1 Researcher bias

This research project can be said to fall under the term "backyard research". Glesne and Peshkin (1992, as cited in Creswell, 2009, p. 177) use the term to describe research where the researcher's own organization, friends or immediate work setting is involved. When conducting research on own students, it is natural to comment on the researcher's role and researcher bias. Qualitative research is in itself interpretative research, having strategic, ethical and personal issues as part of the research process (Locke et al. 2007, as cited in Creswell, 2009, p. 177). This is especially important to focus on when researching own students. Even though "backyard research" is convenient and easy in terms of data collection, it is a challenge not to present biased and incomplete data (Creswell, 2009, p. 177). Creswell (2009) recommends increasing the validity of the research by using multiple strategies "to create reader confidence in the accuracy of the findings" (p. 177). I argue that this has been done in this research project through the triangulation of methods. Creswell (2009, p. 181) also suggests to include data collecting types that are not observation or interview since it can help capture useful information that might be difficult to collect when interacting directly with the participants. Here, Creswell's (2009) suggestions have been followed by including document analysis as one of three data collecting methods.

4.6 Data collection

By interviewing children, they get a voice and can describe their experiences and how they understand the world (Kvale & Brinkmann, 2009, p. 145). In this study, I wanted to give lower-secondary students a voice in connection to source criticism, since there are many assumptions about their level of reflection, but little research that can verify or dismiss these assumptions. When working as a teacher in lower-secondary education you become aware that the students are often quite reflected and that they are able to put into words how they think in their learning processes. I therefore wished to use individual interviews as the main data collecting method in my research.

Before conducting my interviews, I observed the classes during their process of searching for online sources and writing their news articles, not focusing primarily on the students who were to be interviewed. I also used the students' hand-ins as a supportive method in the analysis. I argue that these three data collecting methods give a quite broad understanding of 8th graders in their work with online sources in the ESL classroom. According to Lincoln and Guba (1985, as cited in Johannessen et al., 2010, p. 230) triangulation of methods is a technique that increases the probability for getting trustworthy results in a research project.

In the following, I will shortly describe observation and document analysis, focusing on the data collection in this study. Thereafter, I will focus on the interviews, which will be described more detailed due to being the main data collecting method in this research.

4.6.1 Observation

In our everyday life we observe through using our senses, by experiencing, tasting, listening, smelling and watching. When using observation within research we wish to acquire new knowledge, meaning that the researcher is present in different situations that are relevant to the study, using his or her senses to register observations. Being present in a setting might sometimes be the only approach to gathering valid knowledge as it is not always possible to remember or construct the same knowledge in an interview. Only around five percent of the brain's activity takes place at a conscious level, so it might not always be that what we say is actually what we do (Johannessen et al., 2010, pp. 117-119).

A good reason for conducting observations is to provide knowledge about the context and behaviors to be used as reference point in the interviews (Merriam, 2009, pp. 117-119). I observed the students in their process of collecting sources to be used in their written texts, as well as in the writing process. According to Merriam (2009, p. 199), observation is the best technique to use when an activity or situation can be observed first hand, and as a teacher researching my own students I had this opportunity.

The observation part of the research took place a couple of weeks before the interviews. That gave me the opportunity to formulate questions in the interview guide that were of relevance for the context that the students participated in. It also gave me an impression whether what they expressed in the interviews corresponded with their actions in the classroom.

I wrote field notes after observing the students in the process of collecting online sources to use in their written task. The field notes were written down on a simple piece of paper as soon

as I had time after the teaching sessions. These were not structured notes, but simply immediate thoughts and observations. Descriptive field notes are created when writing about experiences and observations from participating in a social setting (Emerson, Fretz & Shaw, 2011, pp. 5-6). According to Emerson et al. (2011, pp. 5-6) writing descriptive accounts of experiences and observations is not just to "put into words" overheard talk and witnessed activities due to the fact that there is no perfect description of an observed event. Perception and interpretation are important factors in the descriptions, and there can be different descriptions of the same event. It is quite likely that if someone else was in the classroom at the same time as me, observing the same students and situations as I did, he or she would not write the exact same notes. I argue that these are aspects naturally related to the epistemological positioning and constructivist nature of this research project.

My role as a teacher, and the fact that I knew the students from before, will surely have affected what I observed and how I perceived the students' process of collecting sources. Having to function as a teacher in the setting that I was observing did also lead to limitations in terms of how much I could observe and perceive during the short timespan in which the activity of selecting Internet sources took place. This was something that I became quite aware of as I was writing my field notes, as there were few details I could remember. However, I did manage to get an overall impression of the students' strategies during the activity, and a few details were also mentioned in the field notes.

It must be noted that I did not only focus on the students who were to be interviewed during the observation. The reason for that is primarily me having to be a teacher and a researcher at the same time, limiting my opportunities to focus on a few students. However, I argue that general observations are of relevance as well, giving me as a researcher insight into the context which the six interview participants were to describe. In addition, all the students were asked to hand in the links of three of the online sources which they wanted to use in their written text, giving me detailed information about the six students and their process in finding online sources. As mentioned, the observation process also had an influence on the formulation of questions for the interview process.

I argue that the fact that I am a teacher and a natural part of the context being observed the students behaved naturally and more so than if a stranger was in the classroom to observe them. The students did not know that I actively observed them to a greater extent than during a regular English lesson. I had the opportunity to be an active observer, ask them questions

and be more hands-on than most researchers observing in a classroom without interrupting the natural behavior of the students in the context. Gold (1958, as cited in Merriam, 2009, p. 124) lists four possible stances the researcher can have as an observer. Being both a teacher and a researcher I fall within the category of "complete participant", being a member of the group being studied, not disrupting the natural activity. Merriam (2009, p. 124) states that the inside information available to the researcher by using this method must be weighed against possible disadvantages, for example the loss of perspective. There is little doubt that being a teacher, knowing the students from before and having focus on all the aspects of being in charge of a lesson as a whole, led to me not having a focus on the role as an observer. However, it was never my intention to focus on the researcher role and collecting large amounts of data during these lessons. I wanted the situation to be as natural as possible, just as with the research project as a whole, in order to truly get insight into the students' life world and their experiences.

4.6.2 Document analysis

As opposed to interviews and observations, which are data collection strategies designed to gather data to specifically address the research question, document analysis looks at documents usually produced for other reasons than the research project. Therefore, it is not a subject to the same limitations, avoiding a natural setting being intruded by the presence of a researcher (Merriam, 2009, p. 139). The documents being analyzed in this thesis were created in a natural setting, being a part of the everyday school work in the English subject. They were thus "nonreactive and grounded in the context under study" (Merriam, 2009, p. 163). It was important for me not to base my research on assignments constructed solely for this research, creating inauthentic contexts not truly presenting the everyday school life of the students. For the same reason the students were not told that the focus was on using online sources correctly, nor were the students taught how to choose and use online sources correctly on beforehand. They were to write a news article about a current topic, making it necessary for them to use online sources. However, as a teacher I could make sure that the students included a list of sources in their hand-ins. These lists, solely those written by the six students who were interviewed, is the basis for the document analysis in this research. The source lists can to a certain degree reveal whether what the students say in the interviews is what they practice. According to Merriam (2009, p. 155), documents may be the best source of data on a

particular subject and are to a larger extent than interviews and observation "objective" sources of data.

4.6.3 Interviews

The six individual interviews were conducted within a period of two weeks in October 2016. Three boys ($n = 3$) and three girls ($n = 3$) were interviewed, each interview lasting for about 12-20 minutes. A qualitative interview has a focus on the individual and provides an opportunity for investigating a person's perspectives (Lewis & Nichols, 2014, p. 56). As mentioned, this was the aim of the study, and in this part of the thesis I will describe the form of the interviews and the interview process itself.

The interviews conducted with the students were semi-structured. A semi-structured interview has a form somewhere between an open conversation and a closed questionnaire and "attempts to understand themes of the lived everyday world from the subject's own perspectives" (Kvale & Brinkmann, 2009, p. 27). I used an interview guide (Appendix B) during the interviews to help me as an interviewer remember all the subtopics and main questions that I wanted to include in the interview, but it only functioned as guidance. In the last part of the interviews, the webpages the students had handed in on Google Classroom were shown on a PC-screen to visualize and remind the students of the websites they chose, asking questions directly linked to the webpages. The most important part of the interviews was to pay attention to what the students said and formulate questions and follow-up questions based on their response. Therefore, all six interviews included all the important subtopics and main questions, but took different directions and had different length and form.

During the process of finding participants, based on the already mentioned selection criteria and who wanted to participate, I informed twelve students ($n = 12$) about the study and what was expected of them if they participated. They all received the consent form, ten of them were returned with their parents' signature. The reason why I chose to ask more than the six participants was the safety of having backups if someone chose to withdraw during the process and to see who were willing to participate.

The interviews took place at a conference room at the school where I work, Rauåsen school. The atmosphere in the room is good, having a lot of light and bright colors. I started the interviews by repeating the purpose of the study and opening up for questions from the participants. Thereafter I repeated that I would record the interviews, making jokes about the

voice recorder and its old-fashioned appearance to make the students more comfortable. The first questions were quite general and easy for the students to answer. That was a deliberate choice from my part since this most likely was their first time being interviewed, and I wanted to make the students feel like this was something they could master.

Many of the questions in the interview guide were open, giving the students the opportunity to find a focus that was natural for them. Some of the students answered in the direction that I expected, while others needed more detailed and specific questions in order to understand what they were asked. Even so, all their answers gave relevant information on different levels. It was interesting to observe how they reacted differently to quite open questions about a topic they had little experience with.

Kvale and Brinkmann (2009, pp. 28-32) present twelve aspects of a qualitative interview from a phenomenological standpoint. They are all listed in Figure 3.

Figure 3: Twelve aspects of a qualitative interview from a phenomenological standpoint

I will not go into detail in all aspects here, but will describe those of them which were of most importance when designing and conducting the interviews in this research.

Meaning might be the most important aspect of the interviews in this research. The aim was to understand how the students understood source criticism in their *life world* and the questions were formulated for that purpose. Also in the analysis of the interview, the aim was to interpret the meaning behind the students' utterances and what they said "between the lines", wanting to truly understand their thoughts, knowledge and reflections.

By interviewing the students in connection to a school task the students were asked to give descriptions of specific situations in the process, giving the interviews a dimension of *specificity*. This also made the questions more understandable and relevant than if general questions about source criticism were to be asked. It was easier for the students to give more *descriptive* answers, making it possible to actually answer the questions asked in this thesis.

The interview guide made sure the interviews were *focused,* making me as an interviewee ask questions within the relevant topics. At the same time the open questions made sure the students were given the opportunity to share their opinions and immediate thoughts, not feeling there were any right or wrong answers. A semi-structured interview also made sure it was possible to ask follow-up questions where the students' answers led to *ambiguity*.

With all of the already mentioned aspects being a part of the interviews, I argue that the students see the interviews as a *positive experience.* According to Kvale and Brinkmann (2009, p. 32), that is also a common experience when someone shows interest in and seeks to understand one's own experiences and views on a topic to the extent a qualitative interview does.

4.6.4 Transcription

All audio material from the six interviews were transcribed by the researcher into text using a word processor, making the data easier to analyze. Transcribing each interview took about 45 minutes. The participants' identities were protected by giving them pseudonyms, which also made it easier to write about them in the analysis. In addition, the elementary schools were numbered 1-3, thus not presenting their name or location. No other details in the transcriptions can reveal the students' identity either since the questions did not concern the students' identity or ask specifically about their private background.

4.7 Analysis

4.7.1 Analysis of observations

I observed the students in their process of finding sources to use in their written task. The students were told by their teacher, being my colleague or me, to hand in at least three links to sources they would like to use in their text about the presidential election in the USA. They were to hand in the links on Google Classroom, the learning platform used at the school, by the end of the class. This gave the students more than enough time to find sources after being introduced to the written task as a whole.

I chose not to focus on taking notes during my observations as this would appear unnatural in the role of being the teacher in the classroom. I did not wish to make the students feel observed or give them the feeling of doing right or wrong in the process of finding sources. The focus was first of all to make the setting as authentic as possible and here I believe my role was of great importance. However, I did not actively guide the students in their search for sources, something which I would have done outside this research project. I therefore walked around answering the students who asked for help, trying not to give too specific instructions. In cases where students asked me whether a source was "good or not" I tried to make them think for themselves, not revealing my own thoughts and preferences. The wish was to make the students think for themselves and have them make independent choices based on their previous knowledge about source criticism in connection to online sources.

Despite the fact that I did not take notes during the classes, I reflected over what I had observed and took field notes after the lessons. These observations and my notes and will be described in the next chapter.

4.7.2 Document analysis

All the students handed in their final product, a written text about the presidential election with children as its target group, in Google Classroom. This was after a couple of weeks working on the text, both at school and at home. The texts were corrected and graded based on both language, content and structure. In connection to this research project I see the source lists as the most interesting part of their hand ins, something which was not a part of the feedback given to the students since the use of sources was not in focus.

I focused on analyzing the source lists in the texts written by the six students who were interviewed. I see these texts as most relevant since the content can be compared to what the students say in the interviews in terms of online sources they trust, both on an individual level and as a group.

I started the analysis by comparing which sources the students had in common. This was because I immediately saw that there were several Internet pages that were used by two or more of the students. There was actually a small range of sources used by the six students. Thereafter, I took a look at each student individually to see what type of sources they ended up using to find information for their text so that this could be compared with their statements in the interviews.

4.7.3 Analysis of interviews

I started the whole process of analyzing the interviews by writing summaries of the transcriptions in English. In that way, I had to truly perceive what the students had answered, as opposed to when just reading the transcriptions. I had to be careful not to put more meaning into the students' answers than they actually had, but also try to understand what their different ways of expressing themselves really implied. I did not write direct translations of their answers, but tried to summarize important elements. My own thoughts concerning the student in the interview process and initial thoughts concerning their answers were written in parenthesis. Based on the structure of the interviews I created subheadings written in bold in order to give myself a better overview. An example of such a summary can be seen in Appendix C.

4.7.4 Creating categories

Simultaneously with writing summaries of the transcriptions, I started creating suggestions for categories. The subheadings, written in bold in the summaries, were used as a starting point. However, early in this process I saw that these were not sufficient in order to cover all the information the students gave me. I had to make sure that details from the interviews were included, so additional categories were created. The titles of the categories were changed to a certain degree during the process.

It took some time getting through the first couple of interviews as I had to create the categories and look for information in the transcriptions at the same time. I started out writing

down all this by hand, editing categories and trying to keep track of who said what. I quickly saw that my way of taking notes was a bit unstructured and disorganized. I therefore chose to make a simple table in Word. The categories are written in bold, as a headline in each square. Each student has its number which is written after a summary of their answers within each category. In this way, it was easy to see how many, and which students, gave similar answers to the questions in the interviews. The range of answers also becomes quite clear by structuring categories and answers in this way. After going through all the interviews the table (Table 1) turned out like this:

Categories based on interviews	
The numbers represent the students: 1 and 2 are girl and boy from the first elementary school, 3 and 4 are girl and boy from the second elementary school, 5 and 6 are girl and boy from the third elementary school	
Source criticism *Definitions:* To criticize sources (1) Correct facts or not (1) Right or wrong (1) "Wikipedia" (2,6) Double-check/compare (2) Cannot trust all sources (3,4) Not sure, has to do with sources (5) *View of themselves as critical towards Internet sources:* Gullible (1) Sometimes critical (2,5) Yes, but not always easy to be (3) Yes, double-checks and compares sources (4) Yes (6)	**Training in source criticism in elementary school** Recommended not to use Wikipedia (1) Use snl.no (1) Learned that content needs to be logical (1,2) Learned about TONE (3) Compare sources (4) Look at language, should not be copy-paste (4) None (5,6)
The textbook as a source Can be too old (1,2) Trusts the content (1,3,4) Does not trust the content (2) Does not always trust the content, but not sure why (5) 6 not asked directly	**How a "trustable" website looks like** Not so much commercial (1) Few spelling mistakes (1) Bright pages (2) Looks professional/serious/real (3,6) Not "Google translate-language" (4) Should not be difficult to read the text (4) Looks realistic (5)
Online newspapers as a source Write what people want (3,4) Fresh news is positive (1) More rumors/exaggerations (1,4) Trust them (2,3) Can support one of the candidates (2,3,5,6) Can only partly be trusted since it is written by one person (5)	**Wikipedia as a source** Do not think many actually change the facts since they use it as a source themselves (1) Everyone can write there, does rather trust snl.no (2) A lot of information (3) Feels unsure, must double-check the information (3) Information can be changed (1,2,5,6) Not always updated (2,4)

Not sure if they are to be trusted (6)	Both good and bad that everyone can edit (4) Can be trusted if it concerns "big topics" (4) Used even if information can be false (5,6) Likes using the "short facts" on the right side to prevent copying the text when writing (6)
Approach during online search Google (1,2,3,4,5,6) Takes the first hit that looks logical (1,5) Can use time scrolling down if the first ones do not look logical (3) Bing does not have as much info (1) Not worth looking at page two (2) Looks if BBC/other newspapers come up (2,3) Can look at page two (5) Prefers using the first two hits (6) English sources <u>can be</u> more difficult because they do not understand all the words/not mother tongue (2,4,6) English sources <u>is</u> more difficult because of the language (5) English sources <u>not</u> more difficult (1,3)	**Webpages intended to be used in the written task** Wikipedia (1,3,4,5) snl.no (1,2,4) New York Times (1) CNN (2,6) usa.gov/election (2) The Telegraph (2,5) BBC (2,3,4,6) Scholastic (3) Homepages of the two candidates (3) Amerikanskpolitikk.no (4) The Guardian (6)

After looking at the interviews independently, both through summaries and organizing answers within categories, the process of looking for patterns and answers started. This will be presented in chapter 5.

4.8 Validity and reliability

There are several opinions in terms of what are good criteria for quality within qualitative research. Some argue that reliability and validity are relevant criteria, just as in quantitative research. Others argue that other terms should be used (Johannessen et al., 2010, p. 229). Reliability refers to the probability of research findings being the same if the exact same research project was repeated. It is questioned whether reliability as it is understood in quantitative research and natural science can be used in qualitative research due to the uncertainty whether qualitative research findings actually can be replicated (Lewis, Ritchie, Ormston & Morrell, 2014, pp. 354-355). In this research project, I argue that it is not that relevant to include reliability as a measurement for quality due to the focus on the life world of six students, using myself an instrument for collecting data. The chances are small that another researcher interviewing six other students would get the exact same answers as in this research project, and that is not the intention either.

According to Johannessen (2010, p. 229) validity is a criteria more relevant than reliability for determining quality in connection to qualitative research. The question is whether the

research, through the methods used, actually measure what it is supposed to measure. Qualitative research cannot be measured in the same way as quantitative research, but validity can also concern whether a method researches what it is supposed to research and whether the findings reflect the purpose of the study as well as representing reality (Johannessen, 2010, p. 230). I argue that individual interviews, in the context they are conducted, truly is a credible and trustworthy way of getting insight into the students' life world. In addition to interviews, observation and document analysis are additional methods used in order to support and challenge the data from the interviews, which increases the validity of the research as a whole (Lincoln and Guba 1985, as cited in Johannessen et al., 2010, p. 230).

4.9 Ethical considerations

In my research, I have followed the ethical guidelines provided by The Norwegian Centre for Research Data (NSD)[7]. In September 2016, I sent in an application to NSD to conduct my research project since it was a subject to notification. In the application, I described the planned research process in detail, focusing on the considerations taken because I was interviewing children. NSD considered the research project satisfying in terms of protecting the Personal Data Act. There were given only minor comments regarding the design of the consent form and which information that could be included in the thesis (Appendix D). The interviews were recorded and saved on a digital voice recorder during the process of interviewing. The digital voice recorder and the transcriptions were safely stored in a locked drawer before being deleted.

4.9.1 Informed consent, anonymity and confidentiality

In the consent form (Appendix E), the parents and children were informed about the purpose of the study and most importantly about the level of anonymity and the fact that they were free to withdraw from the research at any given time. The parents were required to sign the consent form due to the children being under the age of 18.

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[7] The Norwegian Centre for Research Data, NSD, is the Data Protection Official for Research for all Norwegian universities, university colleges and several research institutes and hospitals.

The students' names were not shared with my supervisor and he only had access to the finished transcriptions. In all written text, the students were given pseudonyms, and there was no information about which elementary school they came from.

4.9.2 The researcher's role in the study

Qualitative researchers recognize that their background shapes their interpretation, knowing they are being influenced by their own experiences, both historical, cultural and personal. The intent is to interpret what other people say about the world (Creswell, 2009, p. 8).

When interviewing children, it is often the adult interviewer who introduces concepts and formulations. The interviewer's suggestions and leading questions can influence their answers (Kvale & Brinkmann, 2009, p. 146). Eder and Fingerson (in Kvale & Brinkmann, 2009) stress the "power imbalance between the child and the adult" and states that the interviewer needs to "avoid being associated with the classroom teacher" (p. 146). This partly because the children must not feel like there is a right or wrong answer to the questions. This is a particular challenge in this research project, working as teacher and interviewing students whom I interact with in the classroom on a weekly basis. I am used to helping the students learn how to come up with their own solutions to solve problems, and in this case my presumptions about what I thought they might answer, and maybe wanted them to answer, might have influenced the way I formulated my questions. Particularly when the students did not have a concrete answer to the questions it was difficult not to ask leading questions, wanting to help them reflect a bit further.

The questions need to be age-appropriate when interviewing children (Kvale & Brinkmann, 2009, p. 146), something I believe was the case in my interviews. This aspect might have been quite easy for me as an interviewer being a teacher for this age group for several years. It might also have helped that I had known those exact students for a couple of months. The questions were not long or complicated, and they were often related to the students' previous experiences and school work carried out just a few weeks previous of the interviews. The interviews took place at their school, a known and natural environment, which might have made the students relaxed in the interview setting.

It was underlined previous of the interviews, in the consent form and also during the interview, that the research and interview itself had nothing to do with our relation as student and teacher, and was also not a part of their assessment in the English subject. I stressed the

fact that this research was something I did as a student and private person and that I truly appreciated their participation. In that way, I believe I made the students more comfortable with being interviewed by a person who is also their teacher.

This chapter has focused on the research process of this study, both in terms of method and analysis. The next chapter will look at the results of the analyses and discuss the findings in connection to theory.

Chapter 5: Results

5.1 Introduction

This chapter presents the main findings from the observation, the document analysis and the interviews.

5.2 Findings

Firstly, the main observations done during the lessons where the students selected online sources will be presented. Thereafter, I will present some findings based on document analysis of the students' source lists in their hand-ins. Last, but not least, the results from the six semi-structured interviews will be presented. The interviews represent the most important data material in this research project and has therefore received the most attention in the analysis.

5.2.1 Findings from observations

The observations for this research project were conducted during a set of English lessons where the students were to select at least three online sources to be used in their written task about the American presidential election.

My first observation was that many of the students seemed a bit unsure and overwhelmed by the amount of possible sources to use. This might have been due to the complexity of the topic, something which might have led to different strategies within the classes. Some students were quite efficient and found three online sources quite quickly, seeming eager to finish the task. Many of these students handed in links to online sources that contained quite general information and that emerged far up on the list of Google results, e.g. Wikipedia[8] and American and British newspapers. It might be argued that these students did not see the importance of using time finding trustworthy and relevant sources in the process of creating the written task. Some might also not have seen the purpose of handing in these links on Classroom, or wanted to finish early so that they could start writing the text itself. Efficiency and usefulness can be argued to be quite important factors to many 8th graders when it comes to how they work during a school task. Other students used quite a lot of time on the task,

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[8] Wikipedia – the free encyclopedia: https://www.wikipedia.org

searching for understandable websites and not settling for the first hits on Google, especially if they did not grasp the content. Most of the students handed in three links by the end of the lesson, but a few only included one or two in their list.

All the students that I observed used Google as their primary search engine, which is quite natural since everyone used their Google Chromebooks where Google is the standard search engine. I did not observe any students who went directly into a website without using the Google search engine first. Another observation was that most students used quite general keywords when googling. "The presidential election", "Hillary Clinton" and "Donald Trump" were observed as the most frequent keywords. The students were therefore not that specific when searching for sources, but seemed to use a strategy where they found general information about the election and the presidential candidates. It was also observed that quite a few students searched for information on Norwegian websites, though most of them did in fact focus on English websites. The students' keywords, whether formulated in Norwegian or English, did naturally affect the language of the websites the students entered.

I also observed that most students spent little time reading and staying on the webpages they found. Overall, their reading habits and focus of attention were mostly preoccupied with headlines, pictures and tables. It seemed as if they tried to get a first impression of the content and the website as a whole in terms of usefulness and whether the information was understandable. They did not seem to focus that much on whether the information was correct or who the author was.

5.2.2 Findings from document analysis

The source lists in the texts written by the six students who were interviewed are the documents that are analyzed in this research project. These lists show which online sources these students ended up using in their written texts about the presidential election, as opposed to the three links which were handed by all the students in 8th grade before the writing process started. However, it must be underlined that there is no guarantee that the sources listed in the source lists are the only sources the students have used as a source of information for their texts as they might not be aware of the importance of a correct source list.

According to the source lists there are several online pages that more than one of the six students have used. This is despite the fact that no webpages were suggested as credible sources from teachers or in the task formulation. Wikipedia is the most evident example since

five out of six students have listed the website in their source list. Four of these have used both English and Norwegian Wikipedia pages, whilst one of them only used Norwegian Wikipedia. All of them used more than one Wikipedia page as a source, both giving information about the candidates and the 2016 election in general. One of the students, Oline, has no other sources than Wikipedia in her source list.

All of the students except Oline used British or American newspapers as sources. CNN[9] and BBC[10] were used by three of the students, whilst The Telegraph was used by two. Two students used the official website of the United States government. Store norske leksikon[11] (SNL) and a Norwegian website covering American politics[12] was used by only one student, Albert. Janne used two webpages none of the other students used; Hillary Clinton's official website[13] and an article from the magazine Town and Country about Trump's sons[14].

5.2.3 Findings from interviews

The results of the interview analysis will be presented based on the eight categories created in the process of analyzing the students' answers (Table 1, pp. 45-46). Direct quotes from the students' answers are all my own translations from Norwegian to English where I have tried to be as true to the original answers as possible.

Source criticism

After a few warm-up-questions the students were asked what they think the term "source criticism" means (the Norwegian term "kildekritikk" was used in the interviews). It was quite evident that the students found it challenging to define source criticism in a precise way and it was difficult for them to put into words what the term really means. They had all quite different answers, some more close to a correct definition than others. Only one of the students answered the question but saying directly that she did not know, while the other five tried to give a definition or explain by giving examples. After being told what the term means, the students had more to say about the matter. However, even then they had very different opinions and varying level of reflection.

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[9] Cable News Network: http://edition.cnn.com/
[10] British Broadcasting Corporation: http://www.bbc.com/news
[11] Store Norske Leksikon: https://snl.no
[12] Amerikanskpolitikk.no: http://www.amerikanskpolitikk.no/
[13] Hillary Clinton – About: https://www.hillaryclinton.com/about/hillary/#children-and-families

[14] Town and country – "Here's What You Need to Know About Donald Trump's Sons: http://www.townandcountrymag.com/society/politics/news/g2296/donald-trump-kids/

Both students from elementary school 2 said that source criticism means that you cannot trust all sources. Oline answered "maybe you just go around and criticize sources for being right or wrong". Martin quickly uttered "Wikipedia!" after being asked what he thinks about when he hears the term "source criticism". Martin did not define the term, even though that was a part of the question, but stated that it is important to compare and double check information you find on the Internet. Janne said that "you cannot trust every single source, kind of", and continued by saying that everyone can write what they feel is correct, but that itself does not make it true. Albert said that the term source criticism means that you cannot trust all sources, stating "(…) or at least you have to be critical towards it, not all sources can be trusted". Thora seemed quite unsure and might be said to have the vaguest and most unspecific answer, saying that "I do not know. It probably has to do with sources". Matteus, who is from the same school as Thora, did just as Martin immediately answer "Wikipedia". But also he was unsure when asked to think a bit more about the question. He said "maybe… I do not quite know. That the website is good or not. Because Wikipedia might not be so good. Because there might be people editing them". Matteus used the word "good" several times, but did not seem able to elaborate what he thought the word meant in this context.

The students were asked if they see themselves as critical towards online sources in their school work, and also here they give quite different answers. Oline said that she sees herself as quite gullible and not that critical towards online sources. When asked if she was critical in the process of finding sources to use in the text about the presidential election, she stated "I used sources I was familiar with, but very often there are things written which are not true, to discuss the candidates in a negative way". This shows that Oline is aware of the fact that online sources should not always be fully trusted, but does despite this not see herself as that critical.

Martin and Thora claim that they only sometimes are critical. Martin said "it happens, but I should probably have been better at it. I do try to use SNL when I can, but very often I use other sources as well, and I am not good at double-checking them". Thora just answered shortly "yes, a little". When Thora is asked in what way, she says "maybe if it is realistic". Due to her very short and little informative answers, she is asked yet another follow-up question. When asked how she sees if an online source contains realistic information, Thora said "I just think it". Thora's answers do show a level of uncertainty in connection to online source criticism, and maybe in the interview situation itself.

Janne claimed that she in fact is critical, but that it sometimes is difficult to be. "I think I am quite good at not just using whichever source, but sometimes it is hard to find anything else than Wikipedia. And then I just have to use that". Albert was quite clear about seeing himself as critical towards online sources and claimed that he often double-checks information and compares sources. Also Matteus claimed that he is critical, without elaborating or justifying his answer. He said "yes, I look closely. Or not closely, but I see if it is real or not. For example, in that English text, because then we were supposed to find sources, and then I checked quite closely if it looked good". Matteus might see himself as critical towards online sources, but shows little competence and knowledge about how to be so in his answers.

Training in source criticism in elementary school

None of the students expressed very clearly that they have been taught how to be critical towards online sources during elementary school. Some of them remember certain lessons where it has been mentioned and a handful of guidelines given from the teachers, but none of them seemed to feel confident within the field of source criticism when starting lower-secondary education. Two of the students were very clear about being given no instructions or guidance, both of them being students from elementary school 3.

Oline mentioned that she was recommended not to use Wikipedia, but to use SNL as an encyclopaedia instead. Just as Martin, both from elementary school 1, she said that the students learned that the content needs to be logical. Martin also said that they were recommended to use SNL, but that the teachers "were not very good at making sure we used it and double-checking everything". This shows that online source criticism has to some extent been a topic at elementary school 1, but not to the extent that these two students feel like they have received a thorough training.

Janne is the only one who mentions learning about the tool TONE. She did not remember what the different letters stand for, but recalled that it had something to do with source criticism. "There were some abbreviations, but we did not have that much about it, so I do not quite remember". Albert, who also went to elementary school 2, did not mention TONE in his interview. He did, however, say that they were taught to compare sources in order to see if a website contained correct information. Albert also mentioned the language and that it should not be "copy-paste". The answers Janne and Albert gave might show that also at elementary

school 2 source criticism has been mentioned and worked with to a certain degree, but not so much that the students remember more than certain elements.

As already mentioned, the two students from elementary school 3 stated that they have received no training in source criticism, despite the fact that they used iPads as learning tools in 7th grade.

The textbook as a source

One of the first questions asked in the interview was whether the students trusted the English textbook as a source. Including questions about the textbook might be seen as a relevant in this context in terms of getting an insight into the students' awareness when it comes to source criticism in general. In addition, the students might be more used to using the textbook as a source in elementary school.

Three of the students said that they do trust the textbook, while only one of them was clear about not doing so. Oline and Martin, both from elementary school 1, said that the textbook might be too old to be sure that the content is correct. Martin was actually quite clear about not trusting the content in the textbook and said that "no, I do not quite trust it. There is a lot I feel is not right". When asked why he thinks so he said that the books are old, so that some things might have changed since the textbook was written. "So there are always these small errors in such books", he stated.

Janne had a quite different answer, saying "yes, I do. After all, it is the textbook!" The boy from the same school as Janne, Albert, says "yes. Because there I know that they have gone through the content before they have printed it", which shows that also he does trust the textbook. Thora says that she does not always trust the content in the textbook, but she is not sure why. Unfortunately, this question was left out in the interview with Matteus.

How a "trustable" website looks like

In order to get a focus on online sources in the rest of the interview, the students were asked to explain how a trustable website looks like. This was a bit difficult for some of the students to answer clearly and their answers included different terms. They said that a trustable website has to look "professional", "serious", "real" and "realistic". Some answers were, however, more concrete, and the students suggested that it should not be difficult to read the text, have

bright pages, few spelling mistakes and not include "Google-translate-language". Three of the students had concrete examples like this, while the others were a bit vaguer, e.g. saying that the facts should be correct.

Oline was asked what she meant by saying that a trustable website should look "correct" (she used the word "riktig"[15]). She answered "that, kind of, it looks a bit stupid if there is a lot of commercials, because then it seems a little… Yeah. And if it is written without spelling errors and things like that, and everything is correct and so on, then it seems as if it is a smarter or more "wise" person who has written it". Oline mentioned some important factors in her answer, but it is clear that she was a bit unsure and lacked a precise terminology. Martin said "well, it helps if the pages are bright. If there is a black page with a lot of black and red, it does look a lot more dangerous!" This shows that the first impression of a webpage's appearance is important to Martin.

Janne said that one of the first things she checks is who has written the webpage, whether it is an ordinary person or a professor. She continued by saying that she also checks if the website looks professional, but had difficulties being concrete when asked how a professional website looks. "It is when, for example… It is a bit hard to explain, but you see it when you enter the page. That it is kind of more serious". Janne's answer tells us that in addition to checking the author of a page, she also uses her intuition and first impression to assess whether the information on a website can be trusted or not. That strategy seems to apply to all of the six students to some extent, also Albert, Thora and Matteus.

Online newspapers as a source

Since so many of the students used British and American newspapers as sources in their written task, I asked some questions in connection to newspapers as trustable online sources. Interestingly, the answers in the interviews show that five out of the six students are skeptical to whether online newspapers can be fully trusted.

Both students from elementary school 3, Thora and Matteus, said that they are not sure whether they can be fully trusted. One of them justifies his answer by saying that articles are written by one person. Both students from elementary school 2, Janne and Albert, said that

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[15] The Norwegian word "riktig" can be interpreted and translated in different ways, meaning e.g. "correct", "right", "exact", "accurate", "real" and "true" in English.

newspapers often write what they think the people want to read and indirectly say that newspapers should not be fully trusted. It is, however, interesting that Janne despite this expressed that she does trust the information in online newspapers. She stated that she actively searched for websites of newspapers in connection to the written task about the presidential election because she felt like "they might be more right". When asked why she believes that, she stated that "they are in fact newspapers, and they must have found their facts somewhere. But certain newspapers do write what they want, so I do double-check". Janne's answer might be said to be ambiguous, wanting to trust newspapers at the same time as being aware of the risks.

The students were asked whether they believed newspapers supported one of the presidential candidates more than the other. Four of the students believed so, which also is an indication that they might be skeptical towards newspapers despite the fact that they used several of them in their written task. Matteus said "yes, I believe so. They might have more pictures and facts about one candidate, and say more mean things about the opponent. I do not know". Martin firstly expressed that he does trust online newspapers, but later said that the newspapers often support one of the presidential candidates more than the other. Just as with Janne, this ambiguity might be explained by the fact that the students were asked follow-up-questions after having stated if they trust online newspapers or not, and the students might have felt that there were right and wrong answers to some of the questions. This despite the fact that the purpose of the interview, and that there no right or wrong answers, was emphasized before the interview started.

Wikipedia as a source

In connection to the trustworthiness of Wikipedia the students had more clear and elaborating answers. Four of them said that they know information can be changed. Two of the students, both of them from elementary school 3, said that they use information from Wikipedia despite the fact that they are aware that information can be changed by everyone. When being confronted with the fact that he had Wikipedia in his list over chosen sources, Matteus said that he does not always use it, saying "not if I suspect that it looks a bit strange. But I use facts about age and so on". Thora said that she mostly uses Wikipedia to check how words are written, but admitted that she uses the information as well. Martin and Albert said that Wikipedia is not always updated. Albert also said that the information on Wikipedia can be

trusted if it concerns a "big topic", and we might assume that the presidential election falls within that category.

The students are skeptical towards Wikipedia in various ways. Janne said that she likes the fact that there is a lot of information on Wikipedia, but that she often chooses to compare with other sources. Martin stated that everyone can write on Wikipedia and that the information is not necessarily correct. "You have to double-check, but it is not always that easy double-checking everything", and claimed that there are not that many other sources to choose between when writing English. Oline, however, said that since so many use Wikipedia as a source themselves, she does not believe people change information and facts on Wikipedia unless it is incorrect.

Approach during online search

The students were asked about their information gathering approaches during the search for sources to use in the written task about the presidential election. All of the students said that they started by going to the Google search engine. One of the students, Oline said that Bing does not have as much information as Google, and therefore she prefers the latter. When asked why she uses Google, Thora said "I do not know. Because it is easiest on the Chromebook". It is likely that the fact that Google Chromebook, which is the type of PC used by all the students in their school work, has Google as its homepage is one of the main reasons why all of the students use Google as their search engine.

When asked how they choose which website to click into after a search, both Oline and Thora said that they take the first hit that looks logical. Martin said that it is not worth looking at the second page of a Google search, while Janne claimed that she might do that if none of the hits on the first page look logical. It is interesting to see that several of the students use the word "logical" and it can be questioned whether this is because source criticism was a topic earlier in the interviews and might have affected the way the students answer.

Matteus was clear about mostly using one of the first two hits during a Google search. He was not quite sure why, but said that "maybe those pages get the most hits, so then maybe it is more likely that it is real". Martin and Janne said that they wanted to use online newspapers in their search for information and looked specifically for them during their search for sources to use in the written task.

When asked whether it is more difficult to assess whether a webpage written in English is trustworthy, only one student, Thora was clear about it being so. Three other students stated that it sometimes might be more difficult due to the fact that they read a text which is not written in their mother tongue. Oline and Janne said that it is just as easy to assess a website and its level of trustworthiness when it is written in English. It might be questioned whether the fact that the students were interviewed by their English teacher might have affected the students' answers in connection to this question. It is in many ways hard to believe that 8th graders do not find it more challenging to read about difficult topics like the presidential election in English, despite the fact that they are students at a medium to high level in the English subject.

Webpages intended to be used in the written task

As described in chapter 4, the students were asked to hand in a list of at least three online sources they wanted to use in their written task. These webpages were used as a starting point for discussion in the last part of the interviews. This was done in order to have the students give answers about source criticism based on their own work and decision making. During the interviews with the students, the webpages they had handed in on Google Classroom were shown on a PC-screen to visualize and remind the students of the websites they chose and their appearance. Many of their answers and reflections in connection to their choices have been included in previous categories, e.g. "using newspapers as a source" and "approach during online search". Here, I will therefore just shortly sum up which webpages were handed in by the students:

Four out of six students planned to use the encyclopedia Wikipedia as a source in their written text, Martin and Matteus being the exceptions. The Norwegian encyclopedia SNL was added to the list by three of the students. BBC was a source that four out of six students planned to use, whilst CNN and The Telegraph were added by two students. The New York Times, The Guardian, the homepages of the two candidates, a Norwegian page about American politics called amerikanspolitikk.no and the official website of the American government was added by only one student. Based on this it is safe to say that newspapers and encyclopedias dominated the list of online sources that the students wished to use in their written text about the presidential election.

5.3 Summary of findings

This chapter provides an insight into the analyses and results from the observations, document analysis and interviews conducted in this thesis. Together these results give a broad picture of the students' reflections, knowledge and practice with online sources in the English school subject. Particularly the interviews demonstrate the perspectives held by the participants in connection to online source criticism.

In the next chapter, the findings presented in this chapter will be discussed in the light of theory, current guidelines and previous research.

Chapter 6: Discussion

6.1 Introduction

In this chapter, the findings presented in chapter 5 lay the foundation for a collection of final thoughts searching to answer the main research question for this thesis: *How do Norwegian lower-secondary students perceive online source criticism in the English school subject?* The findings from all three methods of data collection, organized through the eight categories created based on the interviews, will be discussed in the light of theory and previous research. Study limitations, recommendations and recommendations for further research will conclude the chapter.

6.2 Main findings

The findings, based on observations, documents and interviews, have unveiled how a selection of Norwegian 8th graders perceive source criticism in connection to online sources in the ESL classroom. These findings can contribute to giving answers to how teachers in lower-secondary education should work with source criticism in the ESL classroom, since the results give some insight into how much focus it has had during the students' primary education.

6.2.1 Source criticism

The analysis of the six interviews shows that the students found it difficult to define source criticism when they were asked what "kildekritikk" means. With a little help they could elaborate a bit more, but none of them seemed quite sure. The students also gave quite different answers when asked if they see themselves as critical towards online sources in the ESL classroom. It seems this is because they are unsure what it means and have perhaps not been thoroughly taught how to be critical towards online sources. Based on the emphasized importance digital competence is given, e.g. through being a basic skill in the curriculum (UDIR, 2012) and in reports like the one from the Ministry of Education and Research from 2015, it should be questioned why the students have such a low awareness concerning online source criticism and their own competence in online sources.

As mentioned in the review chapter, the database searches produced little or no research concerning Norwegian and international lower-secondary students' own view of themselves

in connection to online source criticism. Despite the fact that two of the students claim that they are critical when using Internet sources in the ESL classroom, I argue that all in all the students interviewed seem quite unsure within the field of online source criticism. Answers they give throughout the interviews, which will be discussed more in detail throughout this chapter, reveal just that. This research might, therefore, indicate that students starting lower-secondary education in Norway are not confident in determining whether online sources are reliable or not. Further, it can be claimed that the students in this research have not received the training they should have in connection to digital competence in elementary school, expressed as concrete competence aims in both the curriculum and the Trondheim ICT plan (2016c). It can therefore be questioned whether teachers, just as other adults, overestimate today's students' level of digital competence in connection to source criticism, such as claimed by Calvani et al. (2012) and Calvani et al. (2010).

6.2.2 Training in source criticism in elementary school

Another main finding according to the data analysis is that none of the students interviewed in this research expressed that they have been taught how to be critical towards online sources during elementary school. I argue for this being a main finding despite the fact that some students mention certain tips being given by their teachers in elementary school, such as not trusting Wikipedia. Only one student mentioned the tool TONE (described in The Trondheim ICT plan, 2016a), but she did not remember what it contains. The other student from the same school did not mention this tool, and it can therefore be argued that it has not been worked with in detail or over time at their school either.

From the literature review section in this thesis, it was uncovered that there is a lack of Norwegian studies on source criticism of online sources in the lower-secondary school grades, and especially in specific subject disciplines like ESL. Moreover, there is a lack of international and Norwegian studies on how teachers are supposed to teach source criticism to students in these school grades. The resources developed by the Norwegian Centre for ICT in Education (The Norwegian Centre for ICT in Education, 2016b) are some of the few resources giving guidelines and stressing the importance of teaching online source criticism in e.g. the ESL classroom. This might give some answers to why students starting lower-secondary education seem to have received no or little teaching in online source criticism.

The above mentioned is a concern considering the clear message given in the Norwegian Governmental Report (NOU) "Fremtidens skole - fornyelse av fag og kompetanser"[16] (the Ministry of Education, 2015) that assessing information from digital texts is underlined as the most important area of critical thinking in today's school. Frønes and Narvhus (2012) state that there is a great gap between students' competence and what the society demands in terms of source criticism. They claim that we need to make sure students start developing a competence in source criticism adjusted to digital media before they are finished with their lower-secondary education. I do, however, argue that the process should start in elementary school, as suggested in the ICT plan and decided by the curriculum. Students start using online sources in their school work in English and other subjects before starting 8th grade, and the development of source criticism should not start any later.

Strømsø and Bråten (2014) stress the importance of today's young developing the ability to be critical towards web-based sources. I argue that in order to develop this ability, they need support from competent role models and adults. Vygotsky's Zone of Proximal Development, as presented in chapter 3, clearly visualizes how a more competent peer can guide a learner in the process of developing his or her knowledge. I further argue that teachers have an extra responsibility in their work with students in a digital environment in helping them become critical towards online sources. It might seem as if teachers have little knowledge or overestimate students' ability to successfully assess online sources considering that none of the students interviewed in this study seem to have reached the level of competence expected of them when starting lower-secondary education. Said in other words, the students seem to have lacked guidance from a more competent peer in their process of developing their knowledge about online source criticism.

6.2.3 The textbook as a source

One main finding from the data analysis is the dominance of the textbook as a credible source of information in the classroom. Most of the students said that they trust the textbook, though some stated that the information might be a bit old and outdated. Blikstad-Balas and Hvistendahl (2013) state that most teachers use the textbook as the main source of information in their classrooms, leading to students being used to using source material which has already been quality checked for them. This might also lead to students not being that

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[16] My own translation into English: "The School of the Future – Renewal of subjects and competences".

critical towards other sources in a school context either, which might be supported by Blikstad-Balas and Hvistendahl (2013) saying that there are similarities between the reproduction of knowledge that takes place when using both Wikipedia and school textbooks.

Only one of the students interviewed stated that he does not trust the information in the textbook, meaning that five out of six more or less do. According to Hatlevik (2016), a much larger percentage of Norwegian 9th graders trust the information in their textbook as opposed to Wikipedia. These findings along with my own findings indicate that the textbook is perhaps still the dominant and primary source for information in the ESL classroom in elementary school. If the teachers are still heavily reliant on the textbook as a source, it might lead to a to lack of confidence in online sources amongst the students. This again does probably lead to a lack of understanding in source criticism of online sources as well.

6.2.4 How a "trustable" website looks like

It was observed that most students used little time studying the webpages during their search for sources. They were mostly preoccupied with headlines, pictures and tables and quickly decided whether a page they entered was a source they wished to use. Through the interviews it became clear that students had some difficulties answering in a clear way how they saw that a website and its information could be trusted. Some students did mention the language and that it should not have spelling mistakes or have clear traces of being translated through Google Translate. Others said that a website's appearance could say something about its reliability, for example that it should not have too dark colors.

Frønes and Narvhus (2012, p. 58) state that online reading includes challenges we do not face when reading on paper, both due to the structure of the texts and the demands set to the reader's assessments in the reading process. For quite young students, such as the participants in this study, this might lead to strategies characterized by shortcuts and a low level of reflection such as described by Blikstad-Balas & Hvistendahl (2013). This is an assumption supported by the observations in this study.

The study by Metzger et al. (2003) showed that students assess a webpage's credibility as being quite "uninformed", and concludes that "there is cause to be concerned about students' use of the Web as an information resource" (pp. 287-288). This is supported by List et al. (2016) who found that students judge a source based on the title and summaries rather than content and other criteria. Though the studies by Metzger et al. (2003) and List et al. (2016)

have researched undergraduate and college students and focus on other verification strategies than a website's appearance, I argue that the same conclusion can be translated and drawn in this study. After all, it is of no less concern that lower-secondary students seem to use quite little time choosing online sources to use in their schoolwork, seemingly basing their choice on superficial criteria such as color, pictures and language.

6.2.5 Online newspapers as a source

Online newspapers were a popular source in the written task about the presidential election. Despite this, the students interviewed were skeptical towards whether the information could be trusted. For instance, four out of six students believed the journalists supported one of the two presidential candidates more than the other. In The Norwegian Monitor survey (The Norwegian Centre for ICT in Education, 2016b) there was evidence of little correspondence between what sources were trusted the most by students and which were used the most (Blikstad-Balas & Hvistendahl, 2013), a conclusion which can be supported by this study.

It must also be noted that British and American newspapers were among the first hits on Google when the students used general keywords such as "the presidential election". Blikstad-Balas and Hvistendahl (2013) claim that several studies indicate that people in general choose sources that are easily available, which might also be the reason why online newspapers were used by so many of the students in this research despite their skepticism in terms of credibility.

6.2.6 Wikipedia as a source

The document analysis showed that five out of six students ended up using Wikipedia as a source in their written text. Many students in the three classes were also observed clicking into Wikipedia when searching for online sources about the presidential election. This might say something about the popularity of this specific encyclopedia. According to Blikstad-Balas and Hvistendahl (2013) it is also a popular source of information amongst Norwegian upper-secondary students. As referred to in chapter 2, the students in that study see Wikipedia as easy to use and read in addition to being "fast". They also express that it most of the time provides them with the information they are looking for. These are thoughts supported by the students interviewed in this thesis.

It could be claimed that the formulation of the written task concerning the presidential election (Appendix A) might have led to the wide use of Wikipedia. Blikstad-Balas and

Hvistendahl (2013) state school tasks tend to ask for information *about* a topic, not *knowledge of,* and that it therefore should be of little surprise that Wikipedia is a popular site to find information. The students were in fact instructed to write a news article for kids with information *about* the presidential election and Wikipedia seems to have been an easy way to access relevant information. Had the task instructions been formulated so that the students were to produce knowledge of the presidential election, the search strategies and sources used might have been different.

Through the interviews, it is evident that the students are aware of the fact that information on Wikipedia can be edited into false information and that they see this as a weakness. Also, the students in the study by Blikstad-Balas and Hvistendahl (2013) express that it is a disadvantage that you can never be completely sure if the information on Wikipedia is reliable. These students also said that Wikipedia has a bad reputation and that many of their teachers had a negative attitude towards it. These thoughts are supported by some of the students in this study, stating in their interviews that their teachers in elementary school recommended to use other sources or encyclopedia instead of Wikipedia.

The overall impression is that the students researched in this study seemed to be a bit overwhelmed by the amount of sources covering the presidential election. Many websites might have been unknown to the students, and Wikipedia could have felt like a safer choice than many other websites, despite them being aware of the risks in terms of trustworthiness. Three of the students interviewed are quite clear about using Wikipedia despite the known risk for false information. Only one of the students said he preferred to use other sources than Wikipedia, and he was also the only one who did not have Wikipedia in his source list in the written paper. Also, in the study conducted by Lim (2009), the students (American college students) were to some extent skeptical towards Wikipedia, but their use of it led to a conclusion that the benefits of Wikipedia are seen as greater than the risks. This is supported by Hatlevik (2016) who says that only 16% of the participants in his study stated that they "always" trust information from Wikipedia. Based on his findings he concludes that there is not "a consistent relationship between use and trust of information" in connection to Wikipedia (p. 216). I argue that the conclusions in both these studies are supported by the findings in this study.

6.2.7 Approach during Internet search

Based on the observations in this study, I argue that the students do not know how to find relevant online information by using advanced search strategies. They use quite general keywords and do not specify what type of information they are searching for by, for example, adding information in the advanced search tool. Most of the students that I observed also chose to use websites that were among the first hits on Google. Trondheim ICT-plan (2016c) does, however, say that after year 7 students should know how to do an advanced search in order to search for specific types of files and content, also based on publication date. In addition, the English subject curriculum (KPR, 2013a) states that the students should be able to use digital tools to find relevant information before starting lower-secondary education. The findings in this research indicate that the students have not reached these aims, probably due to not receiving enough teaching in online search methods during elementary school. I argue that this will affect their level of online source criticism as well.

The observations in this study concerning the students' approach during the online search are for the most part supported by the answers the students give in the interviews. Only one of the students said that she might take a look at the hits on the second page of the search result if necessary, while the other students were more or less clear about using the first hits in Google when searching for online information. All this indicates that the students trust that Google gives them the most relevant webpages for their purpose. The fact that a website occurs high up on the result list in a search engine does however not say much about its credibility, and settling for the first hits is not recommended (Thurén & Strachal, 2011, p. 12). The study by Metzger et al. (2003) states that students do rely on the Internet for academic purposes to a greater extent than the adult population. However, according to Metzger et al. (2003) online sources is of greater importance in terms of adding sources to the reference list, improving grades and saving time more than improving school work. This might be supported by the observations done in this research, showing that most students used little time searching for which websites to use, many also seeming eager to start writing their text.

The interviews show that the students do not agree on whether it is more difficult to assess if a source is credible when it is written in English. Four students were more or less clear about it being so, while two students said that it is just as easy to assess a website's level of trustworthiness when it is written in English. It was observed that several students chose to get information about the presidential election through reading Norwegian webpages. The majority did, however, mostly read English websites. It can be questioned whether this was

because they thought it was mandatory during an English lesson, because they wished to read information about the topic in the same language as they were to write the text or because they do in fact find it just as easy to read and assess English websites. The latter is not that likely due to this being 8th graders, and the assumption is that the students who were interviewed might have been affected by the fact that it was their English teacher who was interviewing them. I therefore conclude that this study might not truly answer how the language affects the students' process of assessing a website's credibility.

6.2.8 Webpages intended to be used in the written task

Collectively the students interviewed handed in only a small range of websites in their lists of sources intended to be used in the written task. For the most part the lists consisted of Wikipedia-pages and online newspapers. The lack of variation in chosen websites might be explained by the observation that most students used many of the same, and mostly very general, keywords during their search. As mentioned, the students also stated in their interviews that they tend to choose websites among the first hits during a Google search.

This can further be supported by the already mentioned observation that most students used very little time reading on the websites they entered, and seemed to be mostly preoccupied with headlines, tables and pictures. The students seemed a bit overwhelmed by the amount of possible sources to use, and deciding whether to use an online source based on access and first impression might as mentioned have been a strategy used to finish the task more effectively.

These assumptions, trying to answer why there was such a small range of websites in the lists, can be supported by the research by Kiili et al. (2008) and List et al. (2016). The latter researchers state that also undergraduate students judge a source based on the title and summaries rather than content and other criteria, a strategy which might be said to take less time and effort. The same study showed that access and relevance was seen as more important than reliability and credibility, and I argue that this mindset leads to an approach where websites far up on the result list are chosen. None of the students interviewed in this study said directly that they focus mostly on access and relevance, but do so in an implicit manner through the source lists in their written texts.

6.3 Implications

In this thesis, I have tried to answer my research question, *"How do Norwegian lower-secondary school students perceive online source criticism in the English school subject?"* I used a triangulation of methods consisting of observation, semi-structured interviews and document analysis. This study contributes to the field of source criticism, more specifically online source criticism. My study shows that Norwegian students have limited knowledge and reflection concerning online sources in the ESL classroom when they start lower-secondary school.

The findings of the study may contribute to giving online source criticism more attention in elementary school. However, just as important, it hopefully leads to a higher awareness amongst lower-secondary English teachers in terms of the students' limited experience with the field. In addition to English teachers, I argue that the findings from my research have implications for educators in all school subjects. Digital competence is as mentioned in chapter 2 one of five key competences in the National Curriculum, a competence which is to be seen as a competence across subjects (UDIR, 2012). In addition, competence aims in several school subjects concern online source criticism. One example is in the social studies subject curriculum (competence aims after year 10) where it is stated that the students should be able to "reflect on social science questions using information from different digital and printed sources and discuss the objectives and relevance of one's sources" (KPR, 2013b). Another example is in the Norwegian subject curriculum (competence aims after year 7) where one of the competence aims is to "select and evaluate information from the library and digital information channels" (KPR, 2013c).

I argue that this study shows the importance of teacher education programs teaching student teachers how to teach source criticism in their subject disciplines. However, the study also shows that there is a lack of practical guidelines and studies on "how" teachers are supposed to develop online source criticism amongst students, since most studies report on the "status quo". Therefore, due to the lack of studies within the field, policymakers and educational institutions like the Norwegian Centre for ICT in Education should consider the findings in this study as the findings provide insight into students' competence as well as current practice in the schools.

6.3.1 Study limitations

I will argue that my study answers the research question, but there are of course several limitations to the study. First of all, the number of participants in the study gives limited insight into the practice and level of reflection amongst Norwegian 8th graders as a group. Therefore, it is difficult to generalize the findings to include all Norwegian 8th graders. I have argued for the number of participants in the interviews, having a focus on quality and not quantity, but it would have been valuable to interview more students and analyze a larger amount of source lists. I chose to only analyze the source lists in the written texts handed in by the students interviewed, first to make good questions for the interviews and see whether there was a correspondence between and what they said and their practice. However, it would have been interesting to look at several source lists to get an overall impression of the practice in the three classes, e.g. checking if Wikipedia and online newspapers dominated as sources for information.

In chapter 4, I argued that my double role, being both a researcher and the students' teacher, had both strengths and weaknesses. A weakness is the possibility that the students did not answer truthfully in terms of their practice with online sources in the ESL classroom as I am their English teacher. This might have led to the researcher bias described in chapter 4. Based on this I would say that it could have been beneficial to interview students from another school. In addition, my double role during the observation did as mentioned lead to limited possibilities for me to focus on what I actually wanted to observe. It would for instance have been interesting to observe the students who were to be interviewed more closely over a longer period of time. I do, however, argue that it was important that the setting of the observation was natural, and my presence did not make the students feel observed or like this was a lesson out of the ordinary. This would have not been the case if I were to observe classes where I did not teach or know the students. Moreover, I did aim for the study to take place in a natural school context.

I could have yielded different results by using a quantitative approach and through using surveys in the study. Then, a larger amount of students could have participated, and students from several schools and different levels could have been included to give a broader picture. Through using a mixed methods approach (Johnson & Onwuegbuzie, 2004), I could have explored the phenomenon source criticism both in breadth through quantitative methods and in depth through qualitative methods.

My immediate thought after having analyzed the data material is that I could have included more questions in the interviews, questions which would have gone a bit more into depth and revealed more about the students' competence and level of reflection. There could also have been a more evident focus on online sources in the ESL classroom and not so much on online source criticism in general. If I have had more time I could have made adjustments after the first interview, but the interviews took place during a very busy period, having a quite short time span. I wanted to carry out the interviews after the online sources were handed in on Classroom but during or shortly after the writing process, giving me little time to reflect over the interview questions after the first interview. Working full time as a teacher also affected the process, having to find time to interview, take notes and reflect in between lessons, preparation and meetings.

6.3.2 Recommendations for further research

As mentioned, there is little research on the field of online source criticism in a Norwegian school context. There are thus many possibilities in researching the field further. Being a qualitative phenomenological study, this research project aimed at getting an insight into the knowledge and thoughts of a few individual participants. Future research could go much wider through quantitative studies, allowing a larger population sample and numerical data for analysis. Action research would also be interesting, trying to come up with answers to how teachers should work with source criticism in the ESL classroom in order to increase students' level of competence and reflection in using online sources.

It would also be relevant to research other age groups, e.g. to get an insight into students' knowledge and level of reflection by the end of lower-secondary education. It is also possible to delve into how and to what extent English teachers work specifically with online source criticism. This would give a different view to that of students, being able to focus more on subject specific competence and framework such as the curriculum.

There is also a need for comparative studies looking at source criticism across educational institutions and age groups. Finally, longitudinal studies are needed if we are to assess the long-term impact of teaching online source criticism in schools and how this affects students' knowledge about and skills in online source criticism later in life.

6.4 Conclusion and final recommendations

The Norwegian Governmental Report (NOU) *School of the Future* developed by the Ministry of Education and Research (2015) concerns what should be the focus in Norwegian schools in the years to come. It considers what competences will be important for the society and individuals in the future, and digital competence and source criticism is included. The following is my own translation of one of several paragraphs where it is mentioned:

> Digitalization and the access of information changes critical thinking and source criticism, and can be seen as even more important now than before. Information which is digitally accessible is quality checked to a varied extent and can be published by persons or organizations with other intentions than spreading correct information. To be able to relate critically to information (…) is important in a democratic perspective. (The Ministry of Education and Research, 2015, p. 33, my translation)

The report also states that critical thinking will, today and in the future, mostly concern assessing information which is digitally accessible. It is suggested that digital competence should be more closely linked to subject specific competence than it is today (The Ministry of Education and Research, 2015, pp. 26-37). Hopefully, this thesis focusing on source criticism within the English school subject, can contribute in that process. It will nevertheless be interesting to see what position digital competence and source criticism in particular will receive in the Norwegian school in the future. Not only in official documents and guidelines, but more importantly in the classrooms and the students' awareness.

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Overview of Figures and Tables

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Written task about the presidential election 2016

8th grade September/October 2016

Kids often know what is going on in the world but do not always understand everything. Many of them have probably heard that there is a big election coming up in the US, but might not quite understand what it is. Newspapers like "Aftenposten junior" try to simplify news for young readers. You are going to be a journalist for this newspaper, explaining the presidential election for kids!

Write a text, 1-2 pages, where you explain and give information about the presidential election. The document is to be handed in on Google Classroom in a couple of weeks (we agree on a date later on).

> **Assessment criteria**
>
> - The text is **well structured** and **easy to understand** for young readers aged 8-12.
> - The text includes **relevant information** about the election
> - The text is written in your **own words**, not copying directly from sources. Focus on **grammar** and **spelling**.
> - Relevant **pictures** and **headlines** are included and make the text look like a newspaper article

Picture downloaded from journalisten.no

Appendix B

Intervjuguide

Innledning

-Presentere opplegget: masteroppgave, interessert i hva elever tenker på når de velger internettkilder de vil bruke i skolearbeidet, informasjonen brukes i en oppgave hvor navn og skole ikke nevnes

-Frivillighet: kan trekke seg når som helst

- Spørsmålene: har ikke noe med skolearbeidet her på Sunnland å gjøre, vil ikke påvirke forholdet vi har som lærer og elev, vil ikke påvirke vurdering, hjelper meg i arbeidet med masteroppgaven og forbedre undervisningen om kildekritikk i fremtiden. Svar derfor ærlig, ikke tenk på at jeg er læreren din.

Bakgrunnssspørsmål

1)Hva synses du om at alle 8. klassinger har hver sin Chromebook? Påvirker det skolearbeidet på noen måte?

2)Synes du det er greit å kunne bruke internett i skolearbeidet? Hvorfor? Noe som er bedre enn å bare bruke tekstboka?

3)Er det noe du synes er dumt med at dere har internett tilgjengelig hele tiden?

4)Hva tror du jeg mener når jeg sier "kildekritikk"?
5)Har du fått opplæring i kildekritikk på barneskolen?

Hoveddel

1)Mener du selv at du er kildekritisk til internettkilder som du bruker i skolearbeidet?

2) Synes du det er vanskeligere å bedømme om en nettside er god når den står på engelsk?

3) Hvordan går du frem når du skal søke etter informasjon om et tema?

4) Hva mener du gjør en internettside god nok til at du vil bruke den i skolearbeidet ditt? Ser du etter noe spesielt?

5) SE PÅ INTERNETTSIDER SOM ELEVEN HAR VALGT UT. VISE FREM OG BE HAN/HUN FORKLARE HVA SOM GJØR SIDENE TROVERDIGE.

6) (Hvis eleven ikke har brukt Wikipedia) Hva synes du om å Wikipedia som kilde?

Appendix C

"Oline", girl from elementary school 1

(Oline is a reflected girl. She shares thoughts concerning most of the questions and she does not say "I do not know" to any of the questions asked).

Textbook/Chromebook: She starts by stating that she likes using the Chromebook and sees benefits when it comes to supplementing the textbook. She states that the textbook might be old and that new things might have been discovered since it was written. In addition, she says that not everything about a topic is written in the textbook. Therefore, she says that it is good to find more "modern" facts other places.

Source criticism: When Oline is asked what she things the expression "source criticism" means she seems a bit unsure, but thinks that it means criticising sources, saying whether they are right or wrong and whether it is "correct facts".

Are they critical towards sources: She sees herself as a quite gullible person and is not that critical towards Internet sources.

Source criticism in elementary school: Oline does not recall having explicit teaching in source criticism in elementary school. However, she remembers several occasions when the teachers said that is was not a good idea to use Wikipedia since everyone could go in and edit the information. SNL was said to be a good webpage to use since "more experienced people" wrote that information. After a while she remembered a teacher talking about a type of fish living in trees. Oline said that some students believed it, but she thought that there are no fish that can live in trees. And the teacher made a point out of it saying that the students know that there is no such thing and that it cannot be correct since fish cannot breathe air.

Starting English task/Google: In the written task about the presidential election Oline says she used Internet sources she knew from before, e.g. Wikipedia and New York Times. She used sources she thought looked "logical". However, she is aware that some people and journalists might write negatively about one of the candidates. Oline states that she always uses Google as a search engine since she does not have anything else. And Bing does most of the time not have as much information as Google. After adding her search word, which are open and general like for example "Donald Trump", she does not use much time scrolling and looking through the results. According to herself she takes the first webpage that looks logical. She takes the ones which have a title that looks like facts, giving an example that she would not click in to a webpage with the title "Donald Trump is a ****"

Newspapers: When she is asked which type of web sites might come with false information Oline

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points at newspapers. She states that there might be more rumours there. The information is newer, but some journalists might exaggerate.

Appearance of credible sources: A credible source online is according to Oline a website which looks "logical" and "looks right". When she is challenged to explain what she means by that she says that the webpages should have few commercials and adds. It should also have few spelling mistakes since than it seems as if a smarter or more "wise" person has written it.

Sources used in English task: Oline chose to use two Wikipedia-websites, one for each candidate. She is challenged to say whether she chooses to use Wikipedia even though she was advised not to do so in elementary school. She says that since most people use Wikipedia themselves she doubts that so many people would go in and edit the information. She also saw that the Wikipedia pages about the election could not be edited after a certain date, so she thought that the information would probably be correct. Oline also used New York Times. She says that even though it is a newspaper (referring to herself not trusting all newspapers due to information being exaggerated and so on) she states that the information is quite fresh, and as opposed to Wikipedia they give information about what has happened today. When she is asked whether NYT is a source she can trust she seems quite unsure (wanting to say yes since she has used it, but it contradicts what she has said earlier about newspapers as credible sources). She states that she should probably not believe everything, but that she doubts that a leader of a newspaper would choose someone who writes very dramatically.

Appendix D

Fredrik Mørk Røkenes
Program for lærerutdanning NTNU

7491 TRONDHEIM

Vår dato: 30.09.2016	Vår ref: 49750 / 3 / IJJ	Deres dato:	Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 03.09.2016. Meldingen gjelder prosjektet:

> *49750 Are Norwegian students critical towards online sources used in the English subject when starting lower secondary education?*

Behandlingsansvarlig	*NTNU, ved institusjonens øverste leder*
Daglig ansvarlig	*Fredrik Mørk Røkenes*
Student	*Guri Kringstad Blokkum*

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/meldeplikt/skjema.html. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, http://pvo.nsd.no/prosjekt.

Personvernombudet vil ved prosjektets avslutning, 01.08.2017, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Kjersti Haugstvedt

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

Ida Jansen Jondahl

Kontaktperson: Ida Jansen Jondahl tlf: 55 58 30 19
Vedlegg: Prosjektvurdering
Kopi: Guri Kringstad Blokkum gurikbl@gmail.com

Prosjektvurdering - Kommentar

Prosjektnr: 49750

INFORMASJON OG SAMTYKKE

Utvalget informeres skriftlig og muntlig om prosjektet og samtykker til deltakelse. Informasjonsskrivet er godt utformet, men i samtykkefeltet bør du ta bort begge avkryssingsboksene, slik at det er tilstrekkelig å signere dersom man vil at barna skal delta.

Merk at når barn skal delta aktivt, er deltagelsen alltid frivillig for barnet, selv om de foresatte samtykker. Barnet bør få alderstilpasset informasjon om prosjektet, og det må sørges for at de forstår at deltakelse er frivillig og at de når som helst kan trekke seg dersom de ønsker det.

INFORMASJONSSIKKERHET

Personvernombudet legger til grunn at student og veileder følger NTNU sine rutiner for datasikkerhet.

PUBLISERING AV PERSONOPPLYSNINGER

I meldeskjemaet oppgir du at personopplysninger skal publiseres. I informasjonsskrivet står det at deltakerne ikke skal kunne gjenkjennes. Vi legger derfor til grunn at det ikke skal publiseres en kombinasjon av bakgrunnsopplysninger som gjør at informantene er indirekte identifiserbare i publikasjonen. Hvis informantene likevel vil kunne være indirekte identifiserbare i oppgaven, legger vi til grunn at det foreligger eksplisitt samtykke fra den enkelte til dette, og at informantene får anledning til å lese gjennom egne opplysninger og godkjenne disse før publisering.

PROSJEKTSLUTT OG ANONYMISERING

Forventet prosjektslutt er 01.08.2017. Ifølge prosjektmeldingen skal innsamlede opplysninger da anonymiseres. Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes. Det gjøres ved å:

- slette direkte personopplysninger
- slette/omskrive indirekte personopplysninger
- slette digitale lydopptak

Appendix E

Forespørsel om deltakelse i forskningsprosjekt

Bakgrunn og formål

Høsten 2016 starter jeg arbeidet med en masteroppgave ved NTNU, studieprogram "Fag- og yrkesdidaktikk og lærerprofesjon – studieretning engelsk og fremmedspråk". Gjennom denne oppgaven ønsker jeg å få innsikt i 8. klassingers bevissthet rundt kildekritikk i møte med digitale tekster i engelskfaget. Formålet med å innhente slik informasjon er å se hva slags bevissthet elevene har med seg fra barneskolen for videre å kunne gi god undervisning i kildekritikk på ungdomstrinnet.

Jeg ønsker i den forbindelse å intervjue ditt/deres barn. Utvalget av elever som blir forespurt om å delta i studien er i stor grad tilfeldig og basert på et ønske om variasjon i kjønn, barneskole og faglig nivå i engelsk.

Hva innebærer deltakelse i studien?

Elevene vil bli intervjuet individuelt i forbindelse med et prosjekt i engelskfaget hvor digitale kilder skal brukes. De vil få spørsmål knyttet til kildene de har valgt å bruke i informasjonsinnhentingen til et prosjekt i engelskfaget og generelt om deres bevissthet rundt kildekritikk ved bruk av digitale kilder.

Opplysningene innhentes ved lydopptak (diktafon) og skriftlige notater underveis i intervjuet. Foresatte kan på forespørsel få se intervjuguiden. Det vil ikke bli innhentet annen type informasjon om ditt barn.

Hva skjer med informasjonen om barnet ditt?

Alle personopplysninger vil bli behandlet konfidensielt. Det er kun meg og min veileder ved NTNU som vil ha tilgang til opplysningene. Opptak vil kun lagres på en diktafon som oppbevares i en låst skuff når den ikke er i bruk ved intervju eller oppgaveskriving. Skriftlige notater vil ikke inneholde navn og vil oppbevares trygt slik at ingen uvedkommende har tilgang.

Deltakerne vil ikke kunne gjenkjennes i publikasjonen da det verken skal informeres om navn eller skole. Prosjektet skal etter planen avsluttes mai 2017. Da vil datamaterialet i form av lydopptak og notater slettes.

Frivillig deltakelse
Det er frivillig å delta i studien, og du kan når som helst på vegne av barnet ditt trekke ditt samtykke

uten å oppgi noen grunn. Dersom du trekker deg underveis i studien, vil alle opplysninger om barnet ditt bli slettet.

Dersom du har spørsmål til studien, ta kontakt med Guri Kringstad Blokkum (tlf: 93066804, e-post: gurikbl@gmail.com). Veileder Fredrik Mørk Røkenes ved NTNU kan også kontaktes (tlf: 73598148, e-post: fredrik.rokenes@plu.ntnu.no).

Studien er meldt til Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

**Med vennlig hilsen Guri Kringstad Blokkum,
engelsklærer på 8. trinn ved Rauåsen skole**

Samtykke til deltakelse i studien

Navn på barnet: _____

Jeg/vi har mottatt informasjon om studien og **samtykker** til at mitt/vårt barn deltar i studien:

(Signert av foresatte, dato)