Redefining School Literacy

Prominent literacy practices across subjects in upper secondary school

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Thesis submitted for the degree of Philosophiae Doctor

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2013

Acknowledgments

When it comes to moral support, I am also greatly indebted to Emilia Andersson, Lisbeth M. Brevik, Jonas Bakken, Marthe Burgess, and Ulrikke Rindal. Now, when I thank you all because you are such supportive friends and ascertain that you significantly improved my time here at UiO during the PhD period, I do not in any way want to reduce you to a social alibi. While I have had great coffee breaks and lunches, quality movie nights (according to the Swede), rewarding non-academic discussions, and great social gatherings with you, I have also learned a lot–you are all great researchers who have directly contributed to the content of this thesis.

Finally, I am grateful to my family and friends for all the crucial support you have provided. Thank you for taking a genuine interest in my work when it fascinates you and for pretending when it doesn't. Thank you for always reminding me that as many academics, I severely lack a variety of practical skills. Dear Storm Aleksander, thank you for being such a great person and for wisely reminding me that the weekend is not really intended for work. Dear Sindre, thank you for your unwavering love and support, your patience, your friendship, and your ability to always remain positive and calm. You mean the world to me.

Marte Blikstad-Balas, August 2013

Summary

This thesis on school literacy focuses on how students employ different texts within classroom contexts. Based on a methodological, analytical, and theoretical foundation in New Literacy Studies (NLS), it explores how different texts are integrated into a variety of literacy practices across various subjects. The overarching aim of the thesis is to explore prominent literacy practices within a school context, among students in their final year of upper secondary school in Norway. I also discuss how these practices, which are often implicit and somewhat vague, require a professional discourse to represent them.

The units of analysis of the thesis are recurring literacy events in a school context. Literacy events and practices always revolve around a wide variety of texts; thus, the research design of this study is developed to investigate *texts in use*. Small head-mounted video cameras were utilized to identify the most prominent literacy events among a sample of students in upper secondary school. To obtain a deeper understanding of students' literacy practices, extracted still pictures of these re-occurring literacy events were then used in contextualized interviews with the students, in addition to textual artifacts utilized in the same literacy events. Additionally, a secondary data corpus (a quantitative survey) was used to explore whether central tendencies in the primary data corpus were relevant in other schools as well.

Two contexts, which in many ways capture the essence of school, were chosen as particularly important to the search for prominent literacy practices in this thesis: plenary teacher instruction and student work with tasks. The empirical material of this thesis suggests that the combination of information transmitted through teacher instruction and knowledge acquisition documented by students through different school tasks are essential aspects of everyday school life. In addition to investigating student literacy in these specific school contexts, the thesis discusses implications of literacy as a highly multifaceted and vague concept, methodological implications for researchers who investigate literacy empirically by studying, for example, literacy practices, and provides practical implications for both students and teachers within educational settings. The main findings of the thesis are published in three articles, which form the core of this thesis.

Article I explores literacy practices related to the use of personal laptops during teacher instruction. The article deals with how students' literacy practices during traditional whole-class teacher instruction become individualized and digital, and how they typically involve using the Internet to search for vernacular alternatives to intended dominant literacies.

Article II addresses literacy practices that revolve around the online encyclopedia Wikipedia, with an emphasis on what students consider to be the main advantages and drawbacks of Wikipedia when working on assigned tasks in school settings. The article suggests that there is a tension between the students' positive attitudes to including Wikipedia in their everyday literacy practices and their teachers' possible preferences for more institutionalized texts. Article III addresses the use of vague terms such as "literacy" in educational research, by examining the practical, methodological, and theoretical consequences of using vague terms. The main focus of the article is on the shared features of vague terms and their implications for educational research. Throughout the discussion, the article uses the term "practice" as an example.

The three articles all address the overall research aim. While Articles I and II are concerned with empirical investigations of literacy, Article III discusses the central methodological challenges related to this research. The main overall finding of this thesis is that the literacy practices that are an essential and integrated part of everyday life in upper secondary school for the students in the study share the following three features: (a) they are individual rather than institutionalized, (b) they are usually based on digital texts, and (c) they are implicit and often rendered invisible, rather than being an explicit part of the everyday discourse in the classroom. The empirical data in the thesis suggests that students are often free to choose the textual basis of their literacy events and practices, which offers them the possibility of choosing vernacular literacies over dominant literacies in certain contexts, such as during teacher instruction sessions. The search for alternative texts and literacies is facilitated by the constant possibility of using the Internet, which leads to a dramatic increase in the use of digital texts within the classroom. The implicit nature of the intended and actual practices addressed in this thesis indicates that literacy is seldom commented on explicitly. While I argue that it is promising that school literacy is not as dominant as has been indicated by previous research, I also argue that the main findings of the thesis indicate a very serious educational challenge. If intended literacy practices remain invisible and individualized, and there are no visible consequences for not using them, schools do not integrate crucial dominant literacy practices into their overall experience. These dominant literacy practices could be beneficial to the majority of the students, also in academic discourses outside the classroom.

Part I: Extended Abstract

Part II: The Articles

Article I
Blikstad-Balas, M. (2012). Digital Literacy in Upper Secondary School—What Do Students Use Their Laptops for During Teacher Instruction? In *Nordic Journal of Digital Literacy, vol. 7 (2). 81-96*

Article II
Blikstad-Balas, M. & Hvistendahl, R. (2013). Students' Digital Strategies and Shortcuts —Searching for Answers on Wikipedia as a Core Literacy Practice in Upper Secondary School. In *Nordic Journal of Digital Literacy*, *vol. 8 (1-2). 32-48*

Article III
Blikstad-Balas, M. (2013). Vague Concepts in the Educational Sciences: Implications for Researchers.   In *Scandinavian   Journal   of   Educational Research*, DOI:10.1080/00313831.2013.773558

Part I

Extended Abstract

1 Introduction

1.1 A social view on literacy

> Literacy is primarily something people do; it is an activity, located in the space between thought and text. Literacy does not just reside in people's head as a set of skills to be learned, and it does not just reside on paper, captured as texts to be analyzed. Like all human activity, literacy is essentially social, and it is located in the interaction between people (Barton & Hamilton 1998, p. 3).

The viewpoint of literacy evident in the above quote, that literacy is an essentially social activity, has become popular in the field of education over the last three decades. From this perspective, literacy is no longer framed as a discrete set of individual cognitive skills that one must acquire, rather literacy is seen as situated in social contexts and shaped by the participants in these contexts. The idea that everyday reality is socially constructed can be traced back to work in the field of sociology of knowledge (Berger & Luckmann, 1967), where constructed worldviews are presented as mediated by language and culture in an interaction with society. The social practice model of literacy is built on the recognition that literacy is constructed in everyday contexts. Thus, those who want to research literacy must not consider assessment that reduces literacy to individual skills, but rather *how* different texts play roles in the events and practices associated with literacy; always considering the contexts framing these events and practices.

In this thesis, I explore the literacy practices that constitute everyday school life for a group of students in their final year of upper secondary school in Norway. I seek to identify what a sample of students do with texts and how they perceive their own literacy practices in relation to the school domain. The repertoire of literacy practices students engage in is shaped by their school contexts and what schooling values in terms of literacy. Schools are socially powerful institutions that tend to support literacy practices that are frequently considered *dominant*. Such literacy practices are often learned formally and are institutionalized and standardized (Barton 2007, Street and Street 1991). As emphasized by Street and Lefstein (2007, p.146), "these dominant practices can be seen as part of whole discourse formations, institutionalized configurations of power and knowledge which are embodied in social relationships." In addition to the dominant literacies[1] often associated

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[1] There are many sets of practices that can be clustered into coherent groups; therefore, one may talk of these in plural—literacies (for more on the use of the term **literacies,** see Barton (2007), chapter 3)

with schooled literacy, there are literacies that are not imposed, but self-selected and voluntary. Such literacies are often referred to as *vernacular* literacies and these are often less visible and have limited influence (Barton, 2007). In the context of my research, the tension between vernacular and dominant literacies is reinforced: on the one hand, the students are in their final year of upper secondary school and final examinations in a variety of subjects are approaching; thus, there are numerous dominant literacies and formalized expectations facing the students. On the other hand, these students enjoy great individual freedom, which is the general tendency in Nordic education (Carlgren, Klette, Mýrdal, Schnack, & Simola, 2006). Since they constantly have the option of connecting to the Internet, even in the classroom, an almost infinite variety of texts is always available as a basis for their literacy events.

To obtain a better understanding of the literacy practices that are most frequently used by students, I attempt to systematically map the roles written texts play in their daily school routine. The focus is on literacies associated with two contexts that are fundamental in traditional western education: plenary teacher instruction and students working on tasks. These two contexts are recurring across subjects, as students are taught subject content in different ways and are expected to demonstrate their knowledge acquisition or further develop their knowledge through a variety of tasks. In addition to video observations that document literacy events, I encouraged the students to elaborate how they perceive their own documented literacy practices. Thus, in this thesis, I address not only how students engage in literacy events or how they talk about their own literacy practices, but seek to combine documented patterns of events with the students' elaborations on these to obtain a better understanding of prominent literacy practices that are empirically documented.

The discursive patterns associated with literacies in the school context have numerous implications. While some literacies are made explicit and framed orally and in writing, others are often invisible. This aspect is also addressed in this thesis, as I investigate how the students' literacy practices are represented in a professional discourse within the school context. Several studies suggest that teachers rarely draw from a shared knowledge base to improve their practice and that they lack a shared language for describing their teaching practices (Hiebert, Gallimore & Stigler, 2002). It is in itself problematic that teachers might lack a professional forum to discuss their work among peers, but this is also unfortunate for the educational discourse within the classroom. As mentioned earlier, the school is an independent context—it is separated from other contexts and the literacies used in schools are often somewhat different from the literacies one might find elsewhere,

for instance at home or at a supermarket. As emphasized by Street and Lefstein (2007, p. 93) school is a place where "familiar everyday processes of speaking, reading and writing are given a distinct character and a special authority." If the aim is to develop visible practices that all students can participate in and identify with, the manner in which school discourse imparts a distinct character and special authority to these processes is a crucial matter. Just as the lack of a shared professional discourse leads to confusion among teachers—as terms such as "problem solving" or "language experience" might mean different things to different teachers (Hiebert, Gallimore & Stigler, 2002)—it might also lead to confusion among students. If the practices they are supposed to engage in are not easily identifiable and made explicit, a systematic variation in how students perceive these *intended practices* will impact their *actual practices*.

The thesis comprises two parts, an Extended Abstract (part I) and three published articles (part II). The Extended Abstract is structured in the following manner: In section 1.2, I begin by stating the overarching aim of the thesis and the main research questions, where I also introduce the three articles that form the basis of this thesis. In section 1.3, I provide a short overview of the Norwegian school system, which serves to provide relevant background information, as the empirical data referred to in the thesis is from a Norwegian educational context. In chapter 2, I review relevant research on literacy in the school domain, both in the Norwegian and international contexts. In chapter 3, I discuss the theoretical and conceptual frameworks I have employed to address the aims of this thesis. In chapter 4, I focus on methodological considerations and research design, where I describe the data corpus, reflect upon the methodological choices made, and discuss the consequences of these choices. In addition, I also discuss ethical concerns, particularly the notion of informed consent. In chapter 5, I provide a summary of the three articles, discuss the overall findings of the thesis and the implications of these findings, and, finally, I provide brief concluding remarks.

1.2   Overarching aim and research topics

The overarching aim of the present thesis is to *explore prominent literacy practices in a school context among students in their final year of upper secondary school*. In addition, I discuss how such practices require a professional discourse to represent them. In the three articles comprising this thesis, I investigate different research topics related to prominent literacy practices found in my empirical material:

- *Literacy practices related to the use of personal laptops during teacher instruction* is the main topic in the first article. The article deals with how students' literacy practices during traditional whole-class teacher instruction are individualized and digital, as well as how these more often than not involve using the Internet to identify vernacular alternatives to the intended dominant literacies. The article is published as

Blikstad-Balas, M. (2012). Digital Literacy in Upper Secondary School—What Do Students Use Their Laptops for During Teacher Instruction? In *Nordic Journal of Digital Literacy, vol. 7 (2). 81-96*

- *Literacy practices related to the use of the online encyclopedia Wikipedia, with an emphasis on what the students consider to be the main advantages and drawbacks of Wikipedia in a school setting* is the main topic in the second article. The article suggests that there is a tension between the students' positive attitudes to including Wikipedia in their literacy practices and their teachers' possible preference for more institutionalized texts. I also discuss the fact that this tension is not explicit. The article is published as

Blikstad-Balas, M. & Hvistendahl, R. (2013). Students' Digital Strategies and Shortcuts —Searching for Answers on Wikipedia as a Core Literacy Practice in Upper Secondary School. In *Nordic Journal of Digital Literacy*, *vol. 8 (1-2). 32-48*

- The term "literacy practice" is an unobservable theoretical term, which nevertheless is used in empirical research, like many other vague terms (learning, reading, culture, community, identity, etc.). The loose boundaries of such vague terms often implies a lack of shared meaning, which has consequences on theoretical, methodological, and practical levels, for example when considering literacy in a school context. *The shared features of vague terms and the implications of such terms in educational research* are the main topics of the third article. The article is published as

Blikstad-Balas, M. (2013). Vague Concepts in the Educational Sciences: Implications for Researchers. In *Scandinavian Journal of Educational Research*, DOI:10.1080/00313831.2013.773558

1.3 The Norwegian educational context

This section presents a brief contextualization of the Norwegian educational system, which is the context of the present thesis. First, it provides a brief overview the school system in Norway, then it provides an outline of the current curriculum known as *The Knowledge Promotion*. Finally, it presents some key characteristics of the learning environment in Norwegian schools.

1.3.1 *The school system in Norway*

While grades 1–10 (primary and lower secondary school) are compulsory in Norway, the three years of upper secondary school are not. However, it is an explicit political priority to increase the attendance and completion of grades 11–13 (Norwegian Directorate for Education and Training, 2012); a majority of Norwegian students do complete the 13 years of schooling that is legally their right (Nordic Council of Ministers, 2012). In the autumn of 2011, 91.5% of all students aged between 16 and 18 were enrolled in upper secondary education (Norwegian Directorate for Education and Training, 2012) and were attending either general or vocational studies. Once students complete the three years of upper secondary school, they are eligible to receive higher education or vocational qualifications. In 2011, almost 58% of the students attended the general studies program (ibid). The empirical data in this thesis is on students attending general studies, which implies that the participating students could all be enrolled in university studies the semester after data collection.

Norway has a centralized curriculum for all subjects (grades 1–13) that is approved by the Norwegian parliament. The framework established by the curriculum provides considerable freedom to each school and each teacher, as it lacks any guidance or injunctions on instructional methods or organization. Thus, local schools have the possibility and the responsibility to define how they want to concretize the instruction of the subjects within the boundaries of the curriculum.

1.3.2 *The Knowledge Promotion Reform: increased focus on basic skills*

In 2006, a comprehensive national curriculum reform was launched, known as the *Knowledge Promotion Reform*. It encompasses grades 1–13 and places an increased focus on five basic skills that are supposed to be an integrated part of all subjects, within each subject's premises. The five basic skills are oral skills, reading, writing, digital skills, and numeracy. These skills are defined as *basic*, thereby indicating that they are fundamental to learning in all school subjects and also a prerequisite for the student to show his or her competences in and across subjects (Framework for Basic Skills, Norwegian Directorate for Education and Training, 2012). These basic skills are not a Norwegian invention; rather, this focus is a manifestation of perspectives from the Organization for Economic Co-operation and Development (OECD) on competences required in the post-industrial society (Rychen & Salganik, 2003; Hølleland, 2007). *The Knowledge Promotion* contains subject-specific curricula that describe how the five basic skills are integrated in each subject and how they are intended to develop the students' competence and qualifications. Each subject curriculum includes competence aims and a description of how the basic skills are defined in the context of the given subject.

The Knowledge Promotion has been labeled a "literacy reform" because it emphasizes how understanding, learning, and practicing a subject cannot be separated from constructing meaning through language and other semiotic resources (Berge, 2005). This reform explicitly states that various types of texts must be read in each subject. For example, the following texts are mentioned in the social studies curriculum: factual prose texts, fiction, images, film, drawings, graphs, tables, globes, and maps, as well as texts from reference books, newspapers, and the Internet. Further, in the mathematics curriculum, we find mathematical expressions, graphs, tables, symbols, formulas, and logical reasoning, while the natural sciences curriculum mentions written reports, manuals, recipes, tables, graphs, and symbols. One of the intentions of the reform is to prepare Norwegian students for participating in the "information society" where they should be able to engage in a variety of different literacy practices based on all types of texts – and also critically evaluate these texts.

1.3.3 *The learning environment in Norway*

In Norway, it is an important educational principle to integrate students in mixed ability and non-streamed classes (Telhaug, Mediås, & Aasen, 2006). In comparison with numerous other countries, pupils with different backgrounds are rather evenly distributed in

Norwegian schools (Norwegian Directorate for Education and Training, 2012). The differences in measured learning outcomes are small among the schools; the main differences in learning outcomes in Norway are found within individual schools (Olsen & Turmo, 2010). However, at the upper secondary school level, it is common that pupils who share a relatively similar background often choose to go to the same school (Hægeland, Kirkebøen, Raaum, & Salvanes, 2011). In Oslo, where a majority of the empirical material drawn on in this thesis was collected, there is social and economic inequality among school districts (Wiborg, Arnesen, Grøgaard, Støren, & Opheim, 2011) as students with similar socioeconomic status tend to apply for admission in the same schools.

Identifying what constitutes a good learning environment is no easy task, and this is not a term that is clearly defined. According to a definition coined by the Norwegian Directorate for Education and Training, the learning environment encompasses "all of the cultural, relational and physical factors in the school that affect the pupils' learning, health and well-being" (Norwegian Directorate for Education and Training, 2012, p. 58). Further, five basic factors are defined as essential for creating a good learning environment: the teacher's ability to lead classes, the teacher's relational competence, a culture for learning among pupils, good leadership, organization and a culture for learning at the school, and finally, good cooperation between school and home (ibid).

Several studies address the learning environment in Norwegian classrooms. The Pupils Survey is a national study in which students from both primary and secondary school express their opinions regarding factors that are relevant to learning and well-being in school. Findings from the Pupils Survey 2011 suggest that, in general, Norwegian pupils enjoy school (Wendelborg, Røe, & Skaalvik, 2011). This finding is consistent with data on the learning environment from the PISA 2009 study (Throndsen & Turmo, 2010), in which a majority of students in lower secondary school express that they get along well with their teachers and three out of four students agree that their teachers treat them fairly and provide them with extra guidance whenever necessary.

The PISA study from 2009 describes certain key aspects of the learning environment in lower secondary school (Roe & Kjærnsli, 2010). In this study, Norwegian pupils report a worse learning environment than the OECD average on all four questions that measure learning environment[2]. Thus, Norwegian 15-year-olds are less positive regarding the

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[2] The categories are "benefits of schooling," "teacher-pupil relationship," "working environment in the class," and "library use"; see Kjærnsli and Roe (2010).

outcome of their education than students in other countries, and Norwegian classrooms are still struggling with noise, disorder, and time wastage compared to the conditions in most other countries (Throndsen & Turmo, 2010). These findings are also consistent with the findings in the National Pupils Survey (Wendelborg, et al., 2011).

It must be noted that the current Norwegian education curriculum is rather ambitious when it comes to the expected variety of literacy practices. Having digital skills as one of five basic skills is expected to bring about a radical transformation in school literacy, as an increasing number of students have both laptops and Internet access at their disposal. Simultaneously, the ambitious curriculum faces many challenges, some related to learning environment and some, as we will see next, related to the difficulties of making the intentions of the reform understandable in an educational discourse and actually implementing it in the classroom. Therefore, the context of the research in this thesis is multifaceted: the school context itself is associated with prevalent traditional practices; simultaneously, the widespread introduction of information and communications technology (ICT) in the school setting is expected to impact school literacies as access to information will become practically unlimited and the classroom context itself will become slightly blurred with the permanent possibilities of communicating with those who are not physically a part of the particular context.

2   Review of relevant research

The articles comprising the thesis contain review sections that discuss literature and research that are relevant to the specific research questions posed in each article. The following review is intended as a supplement to these reviews contained in the articles. It focuses on prominent literacy practices in the school domain—as revealed by the literature— which is crucial when studying literacy, because "the classroom construction of literacy occurs through the legitimation and valuing of different kinds of texts and interactions" (Jewitt, 2008, p. 248). The review comprises two parts: The first section focuses on existing research on central school literacy practices from an international perspective; the second section deals with literacy in the Norwegian context, with an emphasis on how texts are traditionally used in Norwegian classrooms.

All the empirical data drawn on in this thesis is produced in the Norwegian context; therefore, I review relevant educational research on prominent literacy practices from Norway. Even though my empirical data is from a Norwegian educational setting, the core issues in the articles and in this Extended Abstract are relevant to a broader international audience—this is also the reason that I have not prioritized the Norwegian context in each article. It is worth noting that the difficulties of comparing research findings across the contexts of different studies, which I discuss in Article III, are indeed relevant in this review. Literacy is a very wide term and it is studied using many different indicators in different studies across various sites. Thus, rather than stating that all the following reviews address the exact same phenomenon using similar methods, I argue that they discuss well-documented school practices drawing on the use of literacy and that they all make an important backdrop for my study.

2.1   International research on the role of texts in school

2.1.1   *Critique of the dominant role of textbooks in school literacy*

According to international educational research, the textbook plays a central role in school literacy practices. For example, Alvermann and Moore (1991) found that in American classrooms, the textbook has been the main source of reading material in a majority of content classrooms. They also found that the textbook is rarely supplemented by other texts such as other books or articles from magazines or newspapers. Their findings are consistent with newer, large-scale studies. For example, *TIMMS 2011 International Results in Mathematics* confirms that the textbook is indeed widely used. On average, among the 63

participating countries, textbooks were clearly the most used resource as *the basis* of mathematic instruction, on both the primary (4th grade) and lower secondary levels (8th grade) (Mullis, Martin, Foy, & Arora, 2012). *The 2011 TIMMS International Results in Science* reports an equivalent finding. On average, internationally, the textbook was used most often as the basis for science instruction, both for 4th and 8th grade students (Martin, Mullis, Foy, & Stanco, 2012).

There is a large body of literature that questions the qualities of textbooks in different subjects (Beck, McKeown, & Gromoll, 1989; Chambliss & Calfee, 1998; Haggarty & Pepin, 2002; Knain, 2001; Nelson, 2006). A review of research on science textbooks (Nelson, 2006) emphasizes how these are often not up to date with the latest research on specific subject matter, pedagogy or didactics; that they often do not promote student reflection; and that the number of facts included is often too extensive. An extensive review on history and social sciences textbooks concludes that "studies uniformly find textbooks to be lacking organization, structural cues, and authorial voice" (Moje, Stockdill, Kim, & Kim, 2010). In their account of project-based learning, Krajcik and Blumenfeld (2006) explicitly link the emergence of project-based science with the discovery that ineffective textbook design and instructional style were responsible for students' superficial understanding of science. With a reference to Kesidou & Roseman (2002), they suggest that the science textbooks generally encompassed many topics at a superficial level and "failed to consider students' prior knowledge, lacked coherent explanations of real-world phenomena and didn't give students an opportunity to develop their own explanations of phenomena" (Krajckik & Blumenfeld, 2006, p. 320).

Given the dominance of the textbook across various subjects, it is not surprising that much research focuses on the textbooks themselves, often documenting their deficiencies. While many studies analyze textbooks, fewer focus on how these are actually used in educational settings (Moje et al., 2010). It is worth noting that in an extensive review, *The Role of Text in Classroom Learning,* Wade and Moje (2000) suggest that teachers actually use textbooks more than students. Teachers often rely on textbooks to organize their lessons, plan their instruction, and even to guide their assessment (Wade & Moje, 2000). Thus, the textbook ultimately impacts the actual teaching practices more than the curriculum itself. In Wade and Moje's review (2000), this aspect is emphasized with a reference to Tyson-Bernstein, who claims that "According to virtually all studies on the matter, textbooks have become the *de facto* curriculum of the public schools" (1988, p. 11, cited in Wade and Moje 2000).

Even though a variety of studies focus on print literacy and textbooks, it is also found that "most teachers rely heavily on oral texts—whole class lecture, explanation, demonstration, and recitation—considering them to be the most efficient way to deliver course content and to monitor learning" (Wade & Moje 2000, p. 614). Furthermore, even though many studies indicate that textbooks are often used by students solely to skim for answers for questions at the end of a given chapter or to find definitions of vocabulary words, other texts—particularly those that create an interaction between students and their teachers—play an important role in classroom literacy (ibid).

In addition to the dominating role of textbooks, school literacy is generally criticized for its tendency to focus on limiting print- and language-based notions of literacy (Jewitt 2003, Jewitt, 2008). Even though, as Lemke (1998) points out, all literacy is multimodal, contemporary literacy practices are based on an increasingly complex range of modalities. This increasing multimodal complexity is generally not acknowledged in educational discourse, where literacy is often regarded and assessed within a linguistic notion, as well as a linear view of reading (Jewitt, 2006). Although it is difficult to generalize literacy practices, one of the patterns that have been identified across communities and countries is indeed the multimodal nature of the contemporary literacies (Mills, 2010).

2.1.2 *Reproduction of knowledge: a core literacy practice in school*

While there are a few studies that examine in detail how different texts are used in a classroom context, it has been repeatedly indicated that memorizing and reproducing texts have been essential elements of educational practices for a very long time (Säljö 2010). The manner in which students engage with literacy in schools differs from most literacy practices in their daily lives outside schools because school literacy is usually concerned with proving or documenting students' knowledge obtained from textbooks or lessons. The lessons themselves are also often based on textbooks. As Resnick (1990) emphasizes, the manner in which texts are read in school are very specific: "small sections are read, and students are expected to give specific, generally non-interpretative answers to questions posed by the teacher" (p. 179). Further, Kress (2003) remarks that the school textbook differs from other books in that it is organized around a specific curriculum and is full of activities and tasks that the students are required to complete. Thus, in general, school literacy revolves around transmitting and testing knowledge—more often than not knowledge from a textbook. Therefore, reproduction of predefined factual knowledge can be said to be an established literacy practice in schools.

2.1.3 ICT and digital texts in an international educational discourse

In an article on how digital tools challenge institutional traditions of learning, Säljö (2010) provides examples of the plethora of funded research and research approaches that focus on ICT and learning and argues that this itself indicates a " (…) very strong interest from many and diverse stakeholders in issues of how to use digital technologies in educational settings" (p. 55). Many education stakeholders share the hope that digital technologies will substantially influence teaching and learning, in both primary and secondary school (Olofsson, Lindberg, Fransson, & Hauge, 2011). In her review on Internet usage in schools, Schofield (2006) emphasizes how the Internet is considered, by many, to have the potential to dramatically transform education. Those who have this opinion are not only convinced that Internet use will enrich current approaches to teaching and learning, they also claim that it will "fundamentally transform educational systems" (Schofield, 2006, p. 522). As she indicates, with references to several seminal studies, there are four areas where access to the Internet could facilitate changes in education. First, it can be used to organize learning around active work on real world problems and projects, rather than around more passive assimilation of information. Second, the Internet can provide students with more authentic learning experiences. Third, the Internet can harness the power of well-structured collaborative learning. Finally, the Internet can enable students to pursue topics of personal interest and importance.

Even though Internet access is rapidly growing across schools internationally (Schofield, 2006), students have not been using the Internet as much or as well as expected. Schoefield's review emphasizes that much of students' internet use can be characterized as peripheral and pedestrian. As this issue is discussed in the review section of two of my articles (Articles I and II) as well as in chapter 5, I do not discuss it in depth here. Rather, I refer to the concluding remark in Schoefield's (2006) review—where she highlights two major obstacles to Internet use in schools, namely how the Internet is a gateway to the world beyond the school and how the structure and content of the Internet have not generally been developed with education in mind .The problems of implementing ICT in education seem to remain, and as Säljö (2010) indicates, this is "in spite of the rapid technological developments—the extensive research on educational use of technology, and the continued commitment by politicians and school administrators to reform schooling through the introduction of digital tools" (p. 55).

2.2 Research on prominent literacy practices in Norwegian classrooms

When reviewing literature on literacy practices in the Norwegian context, it is rather evident that there is a lack of research on how texts are integrated in educational practices at the upper secondary level. Therefore, in the following review, I have included several studies from lower secondary school. Even though there is a need to conduct more research on the literacy practices of upper secondary schools, which compel me to include research from lower grades in my review, the lower grades are not irrelevant in any way. Literacy practices develop over time, and thus the practices that students participate in during their school years in primary and lower secondary school have an impact on the practices they draw on in upper secondary school.

2.2.1 *Increased focus on basic skills—implementation of the "literacy reform"*

Although *The Knowledge Promotion* reform is labeled a "literacy reform" due to the explicit emphasis on how language and semiotic resources are a crucial part of all subjects, several studies reveal that there is an inconsistency between the definitions of basic skills and the implementation of these skills in the competence aims of each subject in the curriculum (Dale, 2010; Kolstø, 2009). A national evaluation of the implementation of *The Knowledge Promotion* suggests that, overall, even though schools do focus more on reading than before, school practices with regard to writing, numeracy, and oral skills appear to be the same as before the reform was introduced (Møller, Aasen, & Prøitz, 2009; Ottesen & Møller, 2010). When it comes to the implementation of digital skills, findings from this evaluation suggest that schools tend to focus on the material aspect, that is, on what equipment they possess or lack access to, rather than focusing on how digital skills can be systematically developed (Hertzberg, 2010).

One of the reasons for the discrepancy between the explicit ambitions in *The Knowledge Promotion* and the challenging realities and missing implementation found in Norwegian schools might be the vague definitions of basic skills. Teachers and school administrators seem to lack a common understanding of what the basic skills *are* and how they should be interpreted (Møller et al., 2009). When teachers were interviewed regarding how they integrate basic skills in their own teaching practice, this problem became explicit, as several teachers described the focus on basic skills as completely irrelevant to their subjects (Møller et al., 2009), which again indicates that the intention behind the introduction of basic skills has not been recognized. An explanation for this might be the somewhat misleading adjective "basic" combined with the also often misunderstood noun

"skill." While "basic" can be interpreted as "elementary", which is particularly problematic at the upper secondary level, "skills" are often associated with instrumentality or even technicality (Hertzberg, 2006).

Thus, even though *The Knowledge Promotion* has a promising explicit focus on literacy through the five basic skills, research indicates that this same explicit focus is not manifested in professional discourse, as teachers and school administrators find it difficult to identify how the basic skills must actually be incorporated in their daily practices in school. As I discuss in Article III, there are often situations in the educational discourse where there is apparent agreement on an abstract level (Norwegian school leaders and teachers have not complained that the curriculum itself is difficult to grasp); however, this does not manifest itself on a lower level of abstraction. When interviewed regarding the basic skills, teachers and school leaders reveal that although these terms are officially important, they do not appear to transform teaching practices. For example, when discussing digital skills, teachers systematically focus on equipment—that is, material artifacts. Thus, what teachers refer to when discussing "digital skills" is not in total compliance with the broader goals of digital competencies described in the actual curriculum.

2.2.2 *Texts used in Norwegian classrooms: textbooks*

In an extensive research project aiming to increase knowledge on the reading culture and the role of non-fiction texts across subjects and grade levels, Skjelbred and Aamotsbakken (2010) find that a key characteristic of educational literacy in Norway is the dominant role of the textbook. This is in accordance with other national reports (Rambøll Management, 2005; Juuhl, Hontvedt & Skjelbred, 2010), as well as with the aforementioned international research. In both primary and secondary school in Norway, students receive textbooks from the school—either workbooks that they can write in and keep or more traditional textbooks that they borrow during the school year. Thus, all students have access to at least one textbook in generally all subjects, and Skjelbred and Aamotsbakken (2010) find that even though students and teachers also have access to digital resources, the textbook continues to play a crucial role in literacy practices in the school domain. Their second main finding is that even though teachers spend time and effort on motivating students and contextualizing subject content, there is little effort spent on actual reading of texts (after the first level of primary school) and the texts found in the textbook receive little attention.

Even though there is a considerable freedom to interpret the curriculum in local schools, the extensive use of standardized textbooks (Bachmann, 2004; Rambøll

Management, 2005; Skjelbred & Aamotsbakken, 2010) contributes to creating uniformity in school practices, as the textbooks' interpretation of the national curriculum becomes dominant. Further, teachers tend to use the textbook when planning their lessons, rather than the curriculum itself (Bachmann, 2004; Hodgson, 2010). Up to 90% of a sample of teachers in upper secondary schools in Norway report using the textbook when planning their classroom activities (Rambøll Management, 2005). These studies all suggest that the textbook has a dominant position as a textual basis for literacy practices in the school domain.

2.2.3 *Texts used in Norwegian classrooms: digital texts*

The central position of the textbook in Norwegian classrooms might be slowly weakening due to several factors. The first is that there is an explicit focus on ICT and multiple texts in the new curriculum, *The Knowledge Promotion* (Erstad, 2006; Rogne, 2009), which makes it reasonable to assume that such texts might be assuming increasing importance in the school domain. Students are supposed to use digital texts for learning in all subjects, as digital skills are among the five basic skills and thus are to be integrated in the curricula for all subjects.

Another reason why digital texts are assuming greater importance in school is that Norway is in the lead with regard to Internet access among OECD countries (Kjærnsli, 2007), and Norwegian students are rather accustomed to having Internet access both at home and at school. In particular, at the upper secondary level, there is extensive access to computers and the Internet at school (Egeberg et al., 2012; Hatlevik, Ottestad, Skaug, Kløvstad, & Berge, 2009); moreover, most students also have good access to computers, the Internet, and a variety of digital applications at home (Norwegian Media Authority, 2010). Further, in upper secondary school, an increasing number of students have access to a laptop provided by the school and those who do not obtain a personal laptop have access to both computers and the Internet in computer labs or desktop computers in the classroom.

A study on how a sample of Norwegian upper secondary school students use the Internet at home and at school suggests that students consider the Internet as a natural part of everyday life not only at home, but also at school (Rye & Rye, 2011). Furthermore, students claim that the Internet is an integrated part of their school day and digital resources are perceived as a natural part of their learning environment. When asked about where they would look for information for a school task on a given topic (in this case climate change),

87.3% of the sampled students reported that they would begin from the Internet, before looking at for example their textbooks (Rye & Rye, 2011).

 An extensive use of digital learning management systems (LMS) such as "It's Learning" and "Fronter" is well documented in Norwegian classrooms (Egeberg, et al., 2012; Hatlevik, et al., 2009; Håland, 2007). These are web-based systems that enable teachers to create content (PowerPoint presentations, videos, links to educational sites, etc.), monitor student participation (for example through tests and assignments, as well as by monitoring the resources accessed by each student on the LMS and to keep track of student attendance), and assess student performance. In upper secondary school, over 80% of school leaders in the national Monitor survey reported that they spend resources "to a very large extent" on making teachers at their school use LMS in their instruction (Egeberg et al., 2012).

Together, good access to ICT, explicit focus on digital skills, and the extensive use of LMS in Norwegian schools all indicate an increase in digital literacy practices embedded in the school setting. While there is little doubt that the main objective for the use of the Internet by students in class is learning (Livingstone, 2009), several studies suggest that just as in other countries, Norwegian upper secondary schools face challenges in monitoring and guiding the use of ICT of students (Elstad, 2006; Krumsvik, Ludvigsen, & Urke, 2011).

2.2.4   *Classroom literacy practices: working with tasks*

Since there is a lack of contemporary research on how texts are actually used in Norwegian upper secondary schools, I include several studies from lower grades in this section of the review. A few recent studies on classroom literacy practices from the upper secondary level that are worth mentioning are qualitative case studies on literacy practices in specific subjects in upper secondary school; for example, there are studies on prominent literacy practices among high-achieving physics students (Aamotsbakken & Askeland, 2013), literacy practices among students in English as a second language (Borgen & Lund, 2013), and also on how literacy practices might become more explicit and improve students' writing by using a systematic genre approach (Helstad & Hertzberg, 2013). Further, a promising project at the University of Oslo called Ark & App (literally "Sheet/paper & App") is worth mentioning. In this project, surveys and case studies from four different subjects and several levels of the school systems are combined to obtain not only information regarding which learning resources (print-based and digital) are being used, but also more detailed insight into how teachers and students employ different learning

resources and how these different resources are used in conjunction with each other. For example, the project addresses how digital learning resources are used in combination with traditional print texts and textbooks. In contrast to many studies that only study texts in isolation from context, the objective of Ark & App is to investigate how students use learning resources for different purposes, for instance during lessons and during assessment.

The studies I refer to below are mostly from lower secondary or primary school; however, they illustrate how working with individual tasks is a well-documented literacy practice in Norwegian schools.

In the Nordic countries, traditional ways of working in whole-class settings have been increasingly substituted by new ways of working based on the single individual (Carlgren, et al., 2006). In Norway, instructional patterns in both primary and lower secondary school indicate a change toward a more active student role—the amount of time spent on individual student work has increased, thereby reducing the amount of time spent on plenary teaching (Klette, 2003). Several studies confirm that working with tasks is a common activity in Norwegian schools (Kjærnsli, 2007; Klette, 2003, 2004; Skjelbred & Aamotsbakken, 2010; Skjelbred, Solstad, & Aamotsbakken, 2005). A typical scenario is that students work on tasks individually or in groups, while the teacher walks around the classroom offering guidance whenever necessary (Skjelbred, et al., 2005). Such tasks seem to be increasing with the extensive practice of giving the students a work plan[3] or other plans that provide an overview of tasks that must be completed within a given period of time (Dalland & Klette, 2012; Klette, 2007). While students participating in the primary data corpus did not have specific work plans as this in uncommon in upper secondary school, they did have regular time slots several times a week called "work time" in which they could work on individual tasks for different subjects.

Løvland (2011), who studied literacy practices involving multimodal non-fiction texts among students in fourth and fifth grades in primary school, found that a prominent activity is reading a text to search for correct factual answers to tasks. Rather than reading for understanding, students often "scanned" for the right answers. Further, as emphasized by Roe (2011), most textbooks include tasks, but often these tasks only require that the students locate the "correct answer" from among the facts presented in the textbook. A disadvantage

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[3] In the article "Work-Plan Heroes: Student Strategies in Lower-Secondary Norwegian Classrooms", published in 2012 in *Scandinavian Journal of Educational Research*, Dalland & Klette define a work plan as "a document that specifies what the students are supposed to work on in various school subjects over a certain period of time, often covering two or three weeks. In general, it is a list of required assignments, tasks, and activities to be performed during these periods, including both schoolwork and homework" (p. 3).

associated with this kind of literacy practice is that reading to retrieve facts from a text might lead to rather narrow literacy practices that do not require students to read and understand the text as a whole (Roe, 2011).

The concept that students should be responsible for their own learning is central in Scandinavian educational discourse (Bergqvist, 2012; Lyngsnes, 2007). Several researchers argue that this principle might have negative effects if students are systematically given the possibility to opt out of the educational activities being conducted in class or if students are systematically given too much responsibility for their own learning. For example, Elstad (2006) argues that the combination of low teacher monitoring and high access to technology found in many Norwegian classrooms can be unfortunate, as such classrooms—which he labels "laissez-faire classrooms"—are characterized by a teacher who is not controlling time or student operations. Further, in an article on work plans in lower secondary school, Klette (2007) questioned whether the extensive amount of time spent on individual tasks and related methods that rely on students actively taking responsibility for their own learning might be too great a burden on their capacity for self-monitoring and self-regulation. She claims that the use of individual work plans, which is typical in lower secondary schools, makes low-achieving students responsible for "regulating their own school-failure" (Klette, 2007, p. 352).

2.3   Summary

Both the international and national reviews emphasize the stable dominant role that textbooks play in the school context. The reviews also suggest that textbooks are used more by teachers than students, as teachers often draw on subject textbooks when organizing their lessons, planning their instruction, and also include textbooks in their assessment work. Several reviewed studies suggest that the textbook is the primary source of reading material in many classrooms and that it rarely competes with texts from other domains. Overall, the reviews strengthen the traditional impression that the school domain systematically values literacy practices based on textbooks by strongly supporting and promoting their use.

There is a strong international demand to include digital technologies in education; as emphasized in the reviews, with reference to Articles I and II, the implementation of ICT in schools has been rather challenging as Internet usage by most students has been characterized as peripheral. Norway makes an interesting case when it comes to digital technologies due to the regular access to computers and the Internet that students have both at home and in the classroom. In the Norwegian setting, it is assumed that digital texts

weaken the central role of textbooks. However, several of the reviewed studies suggest that Norwegian upper secondary schools face challenges when it comes to guiding and monitoring the students' actual usage of ICT. This might be due to several factors—for example, the increase in individual work typical in the Nordic countries and also the vague framing of "digital skills" in the national curriculum.

Even though some studies partially address how school literacy might be changing with the change in the school context in Norway, there is a need for further investigations of the most central literacy practices of contemporary schools. Internationally, there is also a need for a greater number of studies focusing not only on the type of texts that are found in the school domain, but also on how these are actually used by students and teachers. My empirical research attempts to make a contribution to the need for such studies by investigating contemporary literacy practices in the school domain, with an emphasis on students' actual use of different texts across subjects.

3 Theoretical framework

In this chapter, I discuss the general theoretical and conceptual framework of this thesis. A key theoretical standpoint in my work is the social nature of literacy, as defined by the scholars associated with *New Literacy Studies* (NLS)[4]. This approach is outlined in the first part of this chapter. In addition, the central concepts for analysis within the NLS approach are also presented, while the methodological implications of these concepts are addressed in chapter 4.

3.1 Literacy—what does it encompass?

While Lemke (1998) indicates that literacies themselves are legion, Palincsar and Ladewsky (2006) argue that definitions of literacy are legion as well. While *attention to reading* has traditionally been a common main thrust of literacy work (Street & Lefstein, 2007) and many definitions seem to revolve around reading, there is still a panoply of definitions rooted in different theoretical traditions. As I discuss in Article III, many terms in educational research have a variety of competing stipulative definitions, but this in itself is not very problematic. What often becomes problematic is if a single definition of, for example, "literacy" is considered not as a localized discursive explanation within a given context, but as an answer to what "literacy" is in all contexts. Even though NLS has worked against a universalist, context-free view on literacy (Mills, 2010), an unresolved criticism of NLS is the need to limit what is included in literacy when conducting empirical research (Barton, Hamilton, & Ivanic, 2000). However, a common feature in empirical literacy research in the tradition of NLS has been that participants virtually always engage with *written words* in their textual engagement and that often other modes and conventions are drawn upon as well (Mills, 2010). Rather than providing one specific definition of what literacy "is", I account for the recent changes in the use of the term "literacy." These changes are crucial to understanding the theoretical, methodological, and analytical perspectives associated with NLS.

Barton (2007) suggests that identifying a precise definition of literacy may be an impossible task; however, he draws attention to the fact that literacy is a fairly recent English word and how the meaning of the term is being extended. This extension of its

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[4] Occasionally, NLS is referred to as "Literacy Studies" because the term has been used for almost 30 years. For a discussion of the terms *(New) Literacy Studies* and *New Literacies*, see Julia Gillen and Guy Merchant (2013). Contact calls: Twitter as a dialogic social and linguistic practice. *Language Sciences* 35, 47-58.

definition is worth discussing briefly, as it is crucial to understanding the complex and multifaceted meaning of the term in contemporary literacy research.

The extension of the term literacy is associated with the dismissal of what is often referred to as "a simple view of reading," where reading is equivalent to the product of decoding and comprehension; this alone is considered sufficient to understand the processes of reading comprehension (Gough & Tunmer, 1986). The simple view of reading is summarized accurately by Spiro and Myers (1984, cited in Norris & Phillips, 2003):

> According to this view, readers go through a series of processing stages that progress from smaller units of analysis in text to larger ones. Roughly, features of letters are detected, letters are recognized, strings of letters are identified as words, concatenated words are analyzed to determine sentence meaning, and, finally, sets of sentences are considered together to produce the meaning of a connected discourse. (p. 478)

In the extended view of reading, literacy goes beyond skill, regardless of how sophisticated those skills are (Norris & Phillips, 2003). An important shift in understanding literacy began with the acknowledgment that reading is always more than a matter of decoding and word recognition. Rather than only focusing on decoding and comprehension, reading research has more recently focused on the cognitive strategies readers utilize during reading, the types of processes readers rely on to obtain meaning from text, and how reading for understanding can be enhanced through systematic strategic work. For example, there is extensive research on the importance of prior knowledge, comprehension monitoring, graphic organizers, and vocabulary instruction (Goldman & Oostendorp, 1999; Pressley, 2006; Pressley, Gambrell, & Morrow, 2003; Snow, 1991; Snow & Sweet, 2003).

In addition to recognizing that the processes involved in reading are far more complex than the simple view that is usually assumed, the most fundamental change in what literacy encompasses is related to the transition from using literacy as a static concept, something people *have obtained*, to the use of literacy as a reference to something people *do*. Jewitt (2008) emphasizes that literacy in educational discourse is increasingly pluralized and multiplied; she argues that the "dominant view of literacy as a universal, autonomous, and monolithic entity is at best dated and in need of reconsideration" (p. 244). A central contribution to the reconsideration and reframing of literacy is the acknowledgment of the social and situated nature of literacy, which is accounted for in the following section.

3.2 Literacy as a primarily social activity

Before the late 1970s, literacy was commonly considered and researched as an individual cognitive skill that could be taught equally to diverse learners and applied equally in all contexts (Larson & Marsh, 2005). In this view, which is often labeled "autonomous," literacy is defined as a unified set of individual and neutral skills. These skills may be applied in the same manner regardless of contexts (Street, 1995); the underlying assumption here is that literacy in itself, autonomously, will have an effect on cognitive and social practices (Street & Lefstein, 2007). The concept that text has meanings that are independent of both context and use implies that literacy is a context-neutral skill, as discussed in section 3.1 This somewhat reductionist definition of literacy is in strong opposition to the approach of NLS, in which literacy is considered as a primarily social and contextualized activity. In contrast to both the individualistic and experimental character of many cognitive studies and the textual perspective that is predominant in linguistic-based studies, NLS advocate a more ethnographic perspective (Street & Lefstein, 2007). Further, NLS has played a central role in the theorization of literacy by emphasizing how literacy is always historically, socially, and culturally situated (Jewitt, 2008). Gillen (2009) also highlights the benefits of NLS for researchers who are studying literacy:

> NLS remains relevant as a springboard to understandings of literacy in its focus on the situated character of functions of literacy, recognising the diverse purposes and understandings with which people deploy their own blends of skills in the production and uses of texts. (p. 65)

As mentioned in the introduction of the thesis, the perception of reality as socially constructed stems from the work of Berger and Lukeman (1967), who consider knowledge reality as "an ongoing, dialectical construction of worldviews" (Larson & Marsh, 2005, p.10). Work on situated cognition (Lave & Rogoff, 1984; Lave & Wenger, 1991; Rogoff, 1990) emphasizes that rather than residing within individuals, knowledge and intelligence are distributed across social practices. When summing up the area of study of situated cognition, Gee (2000) emphasizes that in this approach "[k]nowing is a matter of being able to participate centrally in practice, and learning is a matter of changing patterns of participation" (p. 196).

The landmark study of Vai literacy by Scribner and Cole (1981) was a decisive step towards understanding literacy as a social practice in everyday life. The study suggests that the Vai of northwestern Liberia employ a variety of literacy practices in their daily lives to

accomplish social and cultural purposes. In the conclusion of their study, the authors emphasize how literacy "is not simply knowing how to read and write a particular script but applying this knowledge for specific purposes in specific contexts of use" (Scribner & Cole, 1981, p. 236). In her ethnographic study of literacy, Heath (1983) consistently found that written text played a significant and, simultaneously, very diverse role in the daily lives of residents in three American communities. Along with Street's (1984) work on reading and writing among Islamic villagers in Iran, these studies indicate a shift from a psychological paradigm to a social paradigm of literacy (Barton, 2007). This leads us to one of the core principles of NLS, namely, that different ways of reading and writing are, at all times, embedded in social practices; they are always situated in—and cannot be segregated from—social, cultural, historical, and political relationships (Barton, 2007; Barton & Hamilton, 1998; Gee, 2001; Larson & Marsh, 2005; Street, 1995).

Barton and Hamilton (1998) elaborate on the social nature of literacy that is essential in the approach of NLS:

> Literacy is primarily something people do; it is an activity, located in the space between thought and text. Literacy does not just reside inside people's heads as a set of skills to be learned, and it does not just reside on paper, captured as text to be analyzed. Like all human activity, literacy is essentially social, and it is located in the interaction between people. (p. 3)

The term literacy may be related to all kinds of different reading and writing activities (not merely activities where someone is reading or writing as a main activity, but any activity where the written word has a role), and these activities are considered parts of complex social contexts. Literacy is a symbolic system used both for communicating with others and for representing the world to ourselves (Barton, 2007). Therefore, attitudes and awareness are important aspects of literacy, as are issues of power. It is also common to discuss plural literacies, since literacy is not a single phenomenon that occurs in a static manner.

What is implied by literacy as a social entity? It implies that different people have different goals and different attitudes toward literacy, that a text can never be context-free, and that power relations will always affect literacy. Reading and writing require a great deal more than simply knowing how to write or read a given word or phrase: "Learning to read a text of a given type in a given way, then requires scaffolded socialization into the groups and social practices that make a text of this type be read in this way" (Gee, 2001, p. 17). To read a certain text in a certain context in a certain manner requires the individual to engage

in a social community and be capable of participating in that community's practices. Gee elaborates on this in the following manner:

> [...] those practices, even as they recruit written texts centrally, rarely involve only written text. They involve ways of talking and listening, acting and interacting, thinking and believing, and feeling and valuing as well. All this; types of text, ways of reading them, social groups and their practices that go beyond writing; is what falls under the notion of 'something' when we talk about reading 'something' and have to say what that something is. (ibid.)

While cognitive theories regarding literacy have focused mostly on the institutionalized reading and writing that is taught in schools, sociocultural theorists have emphasized that schools are only one arena of literacy and have made it a priority to conduct extensive research on other kinds of literacies as well. Even though scholars within NLS emphasize that it is crucial to study literacy in daily life beyond the school domain (Barton, 2007), it is also acknowledged that schools as institutions shape the manner in which society perceives literacy. Literacy cannot be limited to a school context; however, on the other hand, schools are institutions that have the formal responsibility of teaching children and young adults the essentials of how to read and write. Schools also have a massive influence on how society views literacy: "schools are powerful definition-generating institutions in our culture for many aspects of life, and especially in the area of literacy" (Barton, 2007, p.176). While my research is indeed limited to the school domain, I take into account that schooled literacy and formal literacy are not the only literacies within the school domain. There is also a need to examine actual practices when conducting research on literacy within the school setting and to avoid excluding literacy that is not formally a part of school. In my research, where findings suggest that "unofficial literacies" predominate in certain contexts, I have studied actual literacy practices and not only intended or teacher-initiated literacy. In both Articles I and II, there is a tension between what the students are told to do and what they actually do. When studying literacy as a social practice, it is important to focus on both imposed and self-selected literacies, as well as the transitions between them.

3.2.1 *Studying ways with words—literacy events and literacy practices*
Within the approach of NLS, two concepts are central in studying the social nature of literacy. These are *literacy events* and *literacy practices*. Together, events and practices are the two basic units of analysis of literacy as a social activity (Barton, 2007). The key idea in this analytical framework is to study literacy events as the specific activities where literacy

has a role, while literacy practices are defined as the general cultural ways of utilizing literacy, which people draw upon in a literacy event. The two terms are accounted for in greater detail in the following account.

In *Ways with Words*, Heath (1983) defines the term literacy event as "when talk revolves around a piece of writing" (p. 386). Subsequently, the term was used by many researchers and a popular definition is "an occasion where written text and talk around the text constructs interpretations, extensions and meanings" (Larson & Marsh, 2005, p. 19). Another definition of literacy event was introduced by Barton and this is also the definition I employ in my thesis. According to this definition, literacy events are "all sorts of occasions in everyday life where the written word has a role" (Barton, 2007, p. 35). While Heath (1983) emphasizes that talk around text is what constitutes the literacy event, Barton's definition is broader, as "all sorts of occasions" can both include and exclude talk in combination with text. Barton emphasizes that his definition implies that literacy events are more than explicit reading or writing activities where one reads or writes with a defined goal. Many literacy events, particularly within the educational system, have learning as an explicit goal; however, we still read and write for many other and more complex reasons than in the situations where reading or writing is the main activity.

The notion of literacy events emphasizes the social and situated nature of literacy and parallels ideas in sociolinguistics, such as Dell Hymes's speech events, mentioned in Barton (2007, p. 36), and Bahktin's claim that analysis of spoken language should depart not from the formal linguistic properties of isolated texts, but from *the social event* of verbal interaction (Lemke, 1995). The main concept is that in order to understand literacy, one should examine the events where reading and writing are used in daily life. In NLS, practices, events, and texts constitute the conceptual framework used to explore literacy across various contexts because the social practices of literacy are "observable in events which are mediated by written text" (Barton & Hamilton, 2000, p. 9). Barton (2007) argues that because literacy is an activity located in the interaction between people (as opposed to an internal, decontextualized cognitive skill), "researchers need to observe literacy events as they happen in people's lives, in particular times and places" (p. 52). It is possible to empirically identify the activities that involve written texts and this is one of the advantages of the term literacy event. Barton and Hamilton (2000) indicate that even though many studies of literacy practices have print literacy as a starting point (including this thesis), in literacy events, people "use written language in an integrated way as part of a range of

semiotic systems; these semiotic systems include mathematical systems, musical notation, maps and other non-text based images" (p. 9).

Even though it is common to use literacy events as observable evidence from which one can infer unobservable literacy practices, it can be challenging in research to draw a distinction between literacy and non-literacy events or to distinguish literacy events from other types of events. As indicated by Barton (2007), it is "difficult to find a communicative activity where literacy does not have a role" (p. 184). For example, Hamilton (2000) encountered difficulties when analyzing literacy events as visual traces of literacy practices in newspaper photographs because it is difficult to decide what to include and exclude in a given literacy event. In my research, this distinction is also slightly problematic, but because I am primarily interested in recurring prominent events that form a pattern and because I employ an operational definition (see section 3.2.2) focusing primarily on print texts (including all kinds of digital texts), borderline literacy events did not become a priority issue.

When Street (1995) began using the term literacy practice, it was as an extension of Heath's term literacy event (Larson & Marsh, 2005). As mentioned earlier, one of her key findings was that informants in her studies used literacy in many different ways and in a variety of contexts, but all were integrated in everyday practices (Heath, 1983). To encompass the overall social practices that literacy events are part of, it is necessary to have a term such as literacy practice. Practice is considered a "key concept that underlies literacy studies and makes language and literacy studies what it is" (Barton & Lee, 2013, p. 25). Viewing language as a set of practices provides a framework for "locating a theory of language in a theory of life" (ibid). There are many social practices in general, and literacy practices may be considered a specific type of social practice. In this sense, what people "do" with literacy is what constitutes literacy practices (Barton, 2007). Further, one can view literacy practices as the general ways of using literacy, which are transferred from one given situation to another similar situation. Street (1995) emphasizes that literacy practices are on another level of abstraction from literacy events:

> The concept of literacy practices is pitched at a higher level of abstraction and refers to both behavior and the social and cultural conceptualizations that give meaning to the uses of reading and/or writing. Literacy practices incorporate not only "literacy events", as empirical occasions to which literacy is integral, but also folk models of those events and the ideological preconceptions that underpin them. (p. 2)

Social and cultural attitudes, notions of literacy, and the way people use literacy are all a part of literacy practices. Hence, literacy practices are not observable units of behavior, like literacy events, because practices "also involve values, attitudes, feelings and social relationships" (Barton & Hamilton, 2000, p. 7). Literacy practices may include a social regulation of texts—a regulation of who has access to given texts and who can produce them (Barton & Hamilton, 1998). Texts gain value depending on who their author is, and the possibility of generating texts and maintaining hegemony is not evenly distributed. Thus, the notion of literacy practices "offers a powerful way of conceptualizing the link between the activities of reading and writing and the social structures in which they are embedded and which they help shape" (Barton & Hamilton, 2000, p. 7).

Many studies within NLS distinguish among literacies that are formalized, standardized, institutionalized, constrained, or dominant, such as most school literacies and literacies that are personal, informal, creative, or vernacular (Barton, 2007; Freire & Macedo, 1987; Gee, 2004; Street 1993; Street, 2003). These divisions are not made to categorize polar opposites and mutually exclusive kinds of literacy; rather, they illustrate the difference between *imposed* and *self-generated* literacies (Barton, 1991) and address that there is indeed a difference between the literacies that are determined and regulated by others—for example schools—and the literacies that are a result of individual choice. While some literacy practices are chosen by a given person for a self-selected purpose, other literacy practices are framed by demands of social institutions. This distinction is important in my research, as both types of literacies are prevalent in the school context.

While some texts and literacies are chosen by students and/or the teachers themselves, some are predefined as important by teachers, textbook authors, school leaders, the county, national curricula, and so on. To address this tension, the distinction between imposed literacy and self-selected literacy is essential. For example, in Article I, Streets' terms *vernacular* and *dominant* literacy play a crucial part in the analysis and discussion of how students systematically avoid dominant (imposed) texts and rather spend their time engaging in vernacular (self-selected) literacy events. However, it is not always straightforward to categorize a literacy event as either dominant or vernacular, and as emphasized by Clarke (2006), there is a danger in using categories that are not mutually exclusive as if they are. For example, if a student is supposed to work with a textbook but chooses to go on Facebook, this might seem like the student has opted for a vernacular literacy event, rather than a dominating one. Nevertheless, if the student uses Facebook to

discuss the textbook task, the boundaries between dominant and vernacular literacies are indistinct.

A similar blurring of boundaries between imposed and voluntary literacies is found in Article II, where I and my co-author choose not to use the distinction "dominant" and "vernacular" when discussing Wikipedia in school. Initially, it appeared as a very tempting choice to label Wikipedia a "vernacular alternative to the dominant textbook". However, as Article II suggests, Wikipedia is integrated into the dominant tasks and occasionally used alongside for instance the textbook. The point here is that the distinction between dominant and vernacular becomes blurred when vernacular literacies are integrated into dominant school practices and this may happen in a variety of ways. This argument parallels the findings made by Barton and Lee (2013), who in their study of writing on the photo-sharing site Flickr.com, found that the distinctions between dominant and vernacular were blurred just as the distinctions between global and local were blurred.

3.2.2 *Operational definitions of key theoretical terms*

When using the term literacy event, I refer to all activities where literacy has a role, even if literacy is not the focal point of the activity. This is not as straightforward as it might appear—as discussed in section 3.1, I have to decide what should "count as literacy". Although, for example, Gillen (2002) convincingly shows that it is not unproblematic to dichotomize between oral and literate communication and by extension exclude oracy from literacy, in this study, I have restricted my focus to literacy that includes some kind of written language or an explicit oral reference to written text.

I use *text* (digital and print-based) as the starting point, and whenever a text is used or referred to orally, I categorize it as an empirical occasion where the written word has a role, that is, a literacy event. Since my research design (which is discussed in chapter 4) includes video recordings, it is possible to focus on both texts that are visible and physically present in the given recording, as well as texts that are mentioned by the teacher or students. The following excerpts show some of the codes in the categories "digital texts" and "paper-based texts", and illustrate how the notion of literacy event has been "mapped" by analyzing the kinds of texts the students use during a given lesson. This is Hedda working on a task (on her screen) that requires reading the textbook (in her hands):
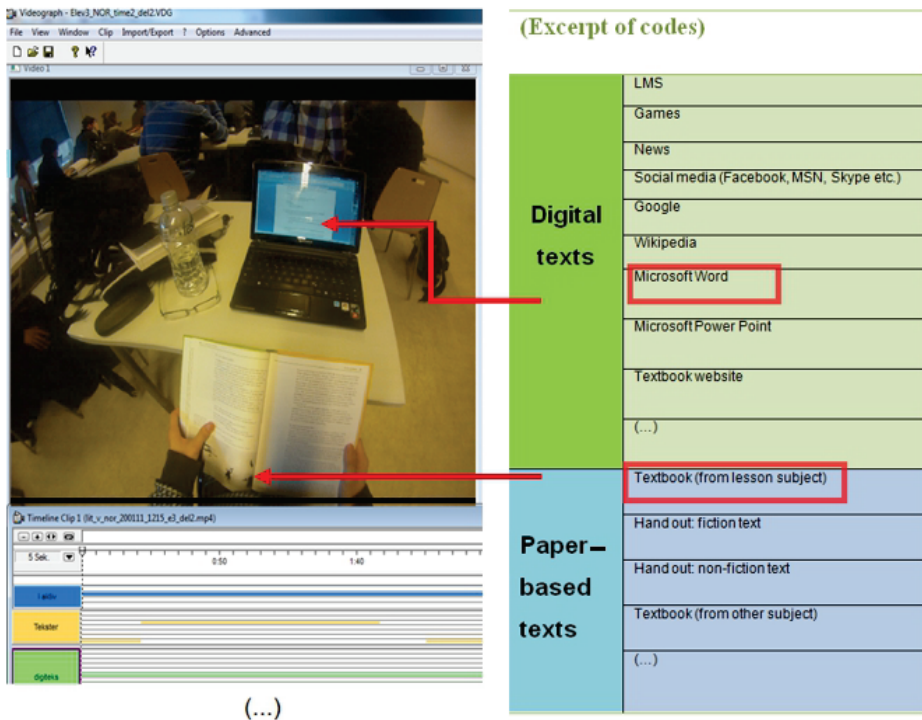
Figure 1 - Excerpt of codes

It is important to explore the kinds of texts that the students use as a basis for their literacy events, since a variety of different texts is crucial for the development of diverse literacy practices. According to Gee (2004), "no one just reads; rather they read something. 'Read' is a transitive verb; it requires an object, a thing being read. […] Learning to read is about learning to read different types of text with real understanding" (p. 39). The operationalization of the term literacy event is not very complex in my study, since the events are observable. I have recorded lessons in different subjects and analyzed those literacy events based on which texts are being used. I argue that it is possible in my data to define when and where "the written word has a role" in any given recording from the classroom because this requires texts, and texts are material artifacts that are visible. Even though it was possible to keep track of the text types in my material, the notion of text itself is changing with the changing affordances of new media; thus, texts are no longer (it they ever were) relatively fixed and stable (Barton & Lee, 2013). While I have been able to categorize texts within different categories (see Appendix 1), part of the explanation for this lies in rather broad categories. For example, if a student is on Facebook, this is categorized as "social media". However, while on Facebook, a variety of text types are woven together:

there might be links to YouTube, newspapers, blogs, videos, Instagram and a number of other text types. In my data, the code "newspaper" would then be used if the student in question chose to activate a link to a newspaper site. Thus, it is important to bear in mind that texts are rather fluid and that digital texts are strongly intertextual. Nevertheless, a text "can act as a fixed point in interaction and can be a starting point for analysis" (Barton & Lee, 2013, p. 26).

In strong contrast with literacy events, literacy practices are not observable. To make a more practical definition of this term is not without problems. As discussed above, literacy practices are at a higher level of abstraction than literacy events, and literacy practices cannot be directly observed (nor can other social practices). Hamilton (2000) refers to visible literacy events as the tip of the iceberg, and it is through the study of literacy events as observable evidence that one can infer literacy practices. As I discuss in chapter 4, my research is designed to explore both literacy events (mapping texts utilized in diverse activities during lessons) and how the participating students describe their own literacy practices. An important aspect here is that rather than simply asking a sample of students "what they do with texts" during school days, I documented specific patterns in literacy events that I then asked them to elaborate on. This is done precisely because of the high level of abstraction of literacy practices. Because they are unobservable and related both to the patterns in literacy events and to the attitudes, feelings, and social relationships of the active participants in these events, I explore literacy practices by using interviews, beginning with the documented textual patterns the interviewed students engage in during their lessons.

The concept of literacy practices clarifies the relationship between action and discourse (Barton & Lee, 2013) and allows for the simultaneous existence of multiple perspectives. Denzin (1998) makes a distinction between two types of interpreters, "people who have actually experienced what has been described, and those who are often ethnographers, or field-workers, so-called well-informed experts" (p. 325), and argues that local interpreters and scientific interpreters often assign different meaning to the same experiences. By studying practices through literacy events, one seeks emic or contextual, situated understandings and simultaneously there is a relation to conceptual structures and etic, abstract, interpretations. As Barton and Lee (2013) emphasize, the notion of literacy practices is "both empirical and close to data and at the same time it invokes a theory and helps link activities to broader concepts" (p. 24).

4 Methods and research design

The main aim of this chapter is to provide an overview of the research design employed in the thesis. It is intended as a supplement to the methodological sections in the articles. I begin this chapter by providing an account of the methodological procedures in the primary and the secondary data corpus. Next, I evaluate the research credibility of my thesis by discussing the reliability, validity, and generalizability of the results. Finally, I consider some ethical aspects regarding free and informed consent.

4.1 Primary data corpus

The primary data corpus is a qualitative study that aims at gaining an understanding of the literacy practices of a sample of students in upper secondary school. Focusing on three subjects—Norwegian Language Arts, History, and Religion and Ethics—I followed a class in a public upper secondary school in Oslo for a period of approximately three weeks, in which I collected all textual artifacts (such as PowerPoint presentations, textbooks, assignments, literary texts, etc.) used during lessons and video-recorded the activities of four focus students, whom I named Stine, Hedda, Andreas, and Thomas. After screening the video recordings of each of these students, I extracted still pictures of activities that could be labeled as typical and prominent, with time as the criterion. Combined with some prominent textual artifacts, the still pictures were used in qualitative semi-structured interviews with the four students. The steps taken in this data collection can be summarized in the following figure:

STEP 1
Video recordings and artifact collection
(3 weeks, 3 subjects)

STEP 2
Analyses of recordings to identify prominent literacy events

STEP 3
Extraction of still pictures of each student engaging in prominant literacy events

STEP 4
Interviews stimulated by still pictures and artifacts
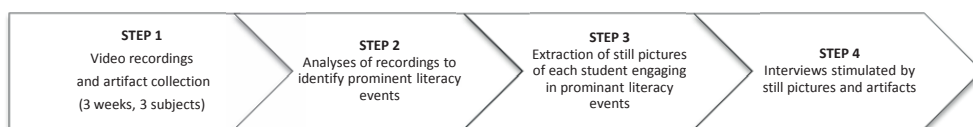
Figure 2 - Primary data collection

In the following account, I describe the two data sources, the video observations, and the semi-structured interviews. As interviewing is among the most common methods in qualitative educational research, there is extensive literature that provides good reasons for using interviews (Kvale, 2007; Kvale & Brinkmann, 2009; Roulston, 2010). Video observation is also a popular method in educational research, but since my design and positioning of cameras is distinctive, this method needs to be accounted for in greater detail than the interviews.

A researcher who works with video relies on a reflexive analysis of the situation, even before the action begins (Mondada, 2006). Although the purely technical issues (related to cameras, tripods, microphones, battery capacity, etc.) might be demanding, one of the key issues in video-based research concerns whether to fixate the camera in a given position (Heath, Hindmarsh, & Luff, 2010). Even though a fixed camera has several advantages, the predefinition of where certain activities will or should occur is a strong limitation of designs based on fixed cameras. The flexibility is minimal and if something should happen beyond the defined camera frame, it will not be recorded and thus it disappears right before the researcher's eyes. As Heat et al. (2010) emphasize, most settings can begin to prove highly demanding if activities begin occurring in a different location, even if the data collection is taking place within a rather limited space, like a classroom.

However, with a handheld camera, the situation is the opposite; not only can the researcher decide to change the focus at any point, the constant changing of focus is often a requirement (if not, one could have opted for a fixed camera). Predicting which activities are "worth recording" in situations where several activities occur simultaneously is very demanding. It should come as no surprise that the main critique of data collections relying solely on handheld cameras is that what "ends up on tape" might often be rather random (Laurier & Philo, 2006), while the use of a fixed camera might lead to a loss of flexibility that severely degrades the data.

Because the definition of a literacy event is so closely related to texts and because literacy events are the analytical objects of my study, I attempted to design a camera solution where I could get as close as possible to the actual work with the text, with a rather consistent view of the stream of action. The overall aim of the video recordings was to obtain detailed information on how texts were used in different literacy events by students in a school setting. I decided that the most important for me was to capture the use of texts, being as close as possible, so that I could really study how the texts were used, rather than just observing the entire class or fixing the camera on a sample of students that might very well shift at any time[5]. My solution was to focus the cameras directly on the four selected students by using a head-mounted camera similar to a head lamp. By doing this, I was able

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[5] In upper secondary school in Norway, the students are often free to sit wherever they like; thus, predicting who is going to sit where can be demanding. Group work is also common, which often requires movement.

to obtain detailed information on what the four students were doing, second by second, during the recordings.

GoPro camera   Students wearing cameras   Camera view
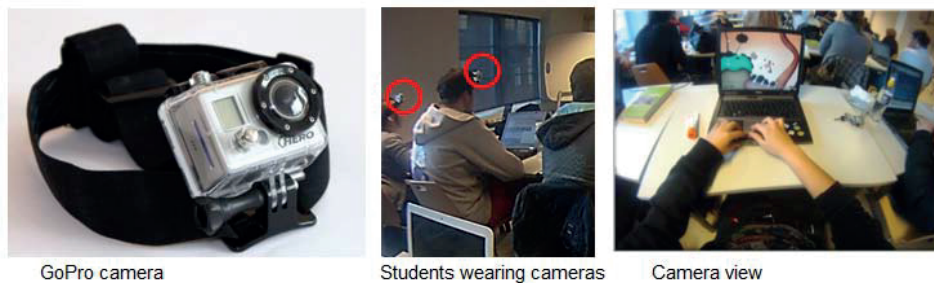
Figure 3 - Camera and camera frames 1

Placing the cameras directly on the students has several advantages. Not only did I have cameras continuously fixed on the same students, I also had flexibility, as the cameras will always "follow the action". If the student moved, the camera also moved. Moreover, the cameras also recorded sound; I was therefore able to obtain detailed information about everything uttered by the students wearing the cameras. Because each participant's engagement with text in each lesson is recorded, this data corpus permits a comparison of different literacy practices during the very same lesson. Obtaining comparable nuances of the actions of each of the four participants in each lesson is a direct benefit of the camera positions and one of the great strengths of my research design.

To obtain an accurate impression of what the students were doing, I used fixed camera angles, which were supplemented by my own field notes. I opted for an angle that is likely to capture whatever the participant is looking at. This is not without problems, as it is possible that the students were actually looking at something different than what was in their predicted line of sight, or even closed their eyes while the camera continued recording. For example, one of the participating students fell asleep during a History lesson while wearing the camera, which is a good example of a situation where the recording alone would lack crucial contextual information (in this case, this explained the slow tilting of the camera to the side and remaining in a fixed position for longer than usual, "aiming" at the student's desk where nothing was happening). This is one of the reasons why I was always present taking notes, observing the recording process, and keeping track of any unpredicted activities. I engaged in *participant observation* (Gobo, 2008), that is, I was present in class but tried not to actively interfere in the lessons and did not talk to the teacher or students while present during the lessons. I spent the time in between lessons preparing the cameras,

and during the lessons I took descriptive notes of what was "going on" in the class at all times, and systematically paid attention to the actions of the four focal students wearing the cameras. These field notes were subsequently used to contextualize the recordings. My impression is that the students rapidly got used to having me present in class because they paid very little attention to me after the initial lesson. As mentioned in section 4.4, I had introduced myself to the class and thoroughly explained the purpose of my research, and after the initial lesson where I received some attention, the students seemed rather unconcerned regarding my presence.

Although there could never be a one-to-one correlation between what the participant was looking at and what was recorded, I found the employed design to be satisfactory. As we can see in the following frames, the recordings provide a good impression of the "action", that is, the student engaging in activities with texts: [6]

Figure 4 - Camera frames

The four focal students who were asked to wear the cameras were chosen with help from their teachers. The teachers of the three selected subjects— Norwegian Language Arts, History, and Religion and Ethics—were encouraged to suggest potential respondents that together would be somewhat representative of the varied working methods of the class and who had a low absence record in their subject classes.

As the selected subjects have a varied number of classes during a typical week, the number of recorded lessons was uneven. I deliberately chose not to record the students for too many hours in the same day both because the students expressed that it would be uncomfortable for them to wear the cameras for more than a few hours at a time and because it was practically impossible to change all the batteries, empty the memory cards,

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[6] The camera utilized has HD quality, thus it is possible to zoom in and read most of the texts the students were reading or writing during the video-recorded lessons.

and file the recordings during, for example, a 10-minute break. Furthermore, I was always present in the classroom during the recordings, monitoring the cameras and taking notes on what was going on in class and which textual artifacts I would need to collect immediately after class (for example, notes taken by the students or PowerPoint presentations used by the teacher), which in itself is a very demanding task. Combined, these issues made me opt for collecting data for a maximum of two lessons immediately succeeding the other.

The figure below presents an overview of the gathering of video data and textual artifacts. The numbers in parentheses refer to the number of lessons recorded in each subject. Thus, "History (1)" is the first lesson recorded in this subject and so on. Some lessons are double lessons, thus they were recorded on the same day—for example, all Norwegian Language Arts lessons are two adjacent lessons.
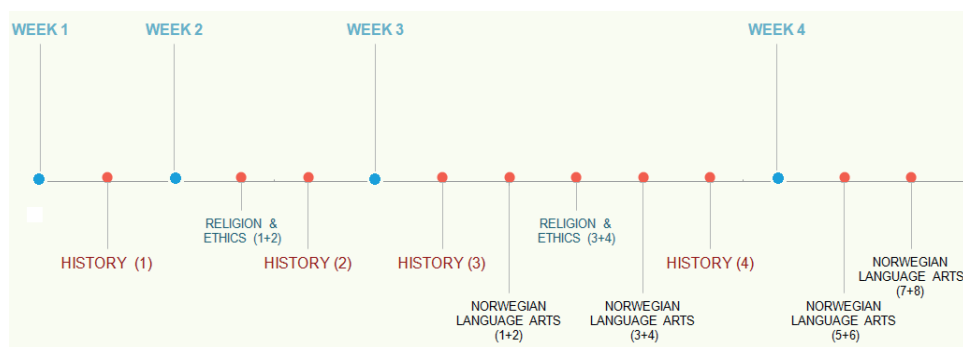
Figure 5 - overview of data collection 1

If all four students had been present at all times during the 18 lessons in which data was collected, this would result in a total of 72 single video recordings (18 from each student). However, one of the students was absent during one lesson in History and during a test in Religion and Ethics, and two of the students preferred not to wear the camera *during the test*, which I of course allowed without further discussion, as it is their unquestionable right to refrain from participating in the study at any time. Further, some technical problems with a battery made the recording of one lesson incomplete and I discarded this recording completely. Thus, the video data comprise a total of 64 versions of 18 lessons.

The coding of the videos was done using a software called Videograph, where I used various categories to describe different text types, for example "textbook", "own notes", "teacher handout", "social media (Facebook, MSN, Twitter)", etc. – see Appendix I for compete overview of codes. I have chosen not to transcribe the verbal utterances in the

video recordings, mainly because the students are occupied in individual silent activities for a major portion of their time. However, while coding, I listened to all utterances several times. The main function of the detailed coding is to have an accurate overview of the textual activities that the students engaged in during different lessons.

During the period of video recording, I collected textual artifacts. Textual artifacts refer to physical textual objects used or constructed in the classroom, for example, tests, textbooks, homework, the teacher's digital presentations, maps, messages on the LMS, etc. My main reason for collecting these artifacts was to create an archive of the texts used and referred to in the video recordings and to use some of the most common text types during the interviews with the four focal students.

Most of the collected textual artifacts were easily accessible. For example, all the texts used by the teachers were easy to obtain, as they were published on the school's LMS. (I was given visitor access[7] to the LMS in the subjects relevant to my study.) The textbooks and handouts were also easy to obtain, and when the students occasionally took notes or worked at school tasks, they willingly shared these texts with me. Nevertheless, some texts are not in my artifact archive: Facebook pages, e-mails (either on the LMS or the students' personal accounts) and other personal information such as text messages were not collected as textual artifacts, although they do appear in the video recordings. Further, collecting information on all the web pages visited by the participants was also a challenge, but I did register what specific pages they were on and the duration of their visit while coding the videos.

A potential weakness in collecting artifacts for research purposes is that the artifacts per se provide no information on how they have been used. In my study, this risk of misinterpretation is minimized due to the video recordings that documented the occurrences of textual artifacts that were actually used. However, I have not analyzed each artifact, but I have used them in the semi-structured interviews and encouraged students to elaborate on their use of and attitudes toward each of the texts that I found to be prominent in the video recordings.

After each recorded lesson, I screened the tapes of each participating student and identified the activities that the student spent the most time on during that particular lesson. Then, I extracted still pictures that illustrate the prominent activity in question. A total of 92

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[7] This means that I have access to what the teachers and the school administration published on the subject pages. However, I did not have access to the teachers' or students' personal accounts; therefore, I could not use the LMS to find, for example, grades, evaluations, work that was previously handed in, personal messages, etc.

still pictures were printed out in colors and laminated in A5 format; they were categorized with a color-coded label for each subject and a student number (to avoid mixing the still pictures from one participant with another participant's still pictures). These pictures were also labeled with the date they were "taken", that is, the day the video recording that they were extracted from was made. A few pictures showing only non-school related activities (gaming, Facebook, etc.) while the teacher was teaching were not marked by subject, date, or student, as these non-academic activities constituted a particular topic that was broached toward the end of the interview, as I wanted to discuss this topic at a more general level. All four focal students are represented in these thematic still pictures, as they all frequently engaged in literacy practices of Internet entertainment and/or games.

4.1.2 *Semi-structured interviews*

A majority of published qualitative research articles employ interviews (Silverman, 2013) and there is extensive methodological literature on the topic (Kvale, 1994, 2007; Kvale & Brinkmann, 2009; Roulston, 2010). Qualitative research interviews are also often criticized for a number of reasons (see Kvale 1994 for an overview of standard objections to this method). Emphasizing how it is important to always ask yourself whether interview data really fit your research topic, Silverman (2013) poses the following question: "In the case of the classroom, couldn't you observe what people do there instead of asking them what they think about it?" (p. 48). The aim of my research on literacy practices is to actually do both. As I described in section 4.1.1, the video recordings provide a record of what students do (with texts) in the classroom; however, to explore their literacy practices, I also need to know what the students think about their own activities involving texts. Thus, talking to the students about their activities is a crucial part of my research and such information cannot be obtained without directly asking for it.

The semi-structured interviews were conducted in pairs. Stine and Andreas constituted one pair, Hedda and Thomas the other. The interview with Stine and Andreas lasted for 50 minutes, while the interview with Hedda and Thomas lasted for 33 minutes. Both interviews were conducted on the school campus a week after collecting the last video recordings. The interviews began by asking the students to comment on the laminated A5 pictures that were extracted from their recordings. Each student commented on his or her own pictures and explained what they were doing in each picture. While looking at pictures from one specific subject, the students were also shown some of the textual artifacts from the recorded lessons and asked to comment on both form and content. Toward the end of the

interview, the students were encouraged to talk about some pictures showing students using the Internet for entertainment while the teacher was giving a digital presentation. These last pictures were collected across subjects and were not marked with the subject, date, or student names. All four students were represented in this last category. I interviewed the students in Norwegian, transcribed the interviews, and then had them translated into English.

4.1.3   *Is the present design a Subjective Evidence-Based Ethnography?*
In the article entitled "How can we capture the subject's perspective? An evidence-based approach for the social scientist", Lahlou (2011) describes a method named *Subjective Evidence-Based Ethnography* (SEBE). This method combines the following three steps:

- A first person audio-visual recording (using cameras worn at eye-level; in this approach, the camera is referred to as "subcam").
- Confronting subjects with the first-person recordings in an evidence based, controlled, analytic reconstruction.
- Formulating findings and discussing the final interpretation with the subjects.

My research design resembles SEBE in terms of several aspects. Both my design and SEBE aim to obtain situated recordings and record "as close as possible to the actual perspective of the actor" (Lahlou, 2011). Since my aim is to describe the experiences and practices my informants have with text in a school setting, an external observation alone would not provide satisfactory insight into their actual experiences; therefore, I rely on the informants' elaborations of their own activities. Thus, confronting the subject with documented events is also crucial in both my design and SEBE. However, even though I do discuss preliminary findings with my informants, I do not discuss my final interpretation of the overall data with them; this is the third criteria of SEBE. Therefore, I argue that even though there are strong similarities between SEBE and the research design I employ, my research design cannot be labeled as SEBE. Not only do I lack the third criterion, but the researchers who developed SEBE are explicitly skeptical of using cameras designed for other purposes than SEBE research. The cameras I have used are made by GoPro and are originally intended for recording sports. Lahlou (2011) suggests researchers using such equipment are both "foolish" and "naïve" if they believe that this can be used in SEBE. My main criteria when choosing the camera model was that it should provide rich and detailed data on how texts are a part of literacy events in everyday life in the classroom. I do not in

any way consider it a drawback that these cameras were produced for other purposes, rather I see it as advantageous that such cameras are easy to obtain, flexible to use, and popular among teenagers.

As Lahlou (2011) indicates, the best vision of one's own activity is obtained by the subject himself/herself. Therefore, it is often difficult to record what someone is doing because most of what a given subject is doing is hidden from a traditional external observer by the subject's body. The area of interest in my research is what Lahlou (2011) refers to as the *manipulation zone*, "an area of small volume situated directly in front of the subject, by nature within arm's reach" (p. 615). By using the cameras I have included in my research design, I obtained a good view of what each informant was doing with the texts during the recorded lessons. In my research design, it is neither important nor possible to obtain a perspective that matches *exactly* with the informant's personal perspective and experience of "being in the context". Rather, my design is based on the assumption that placing the camera directly on each informant, thus capturing the manipulation area where the informant is operating, will provide a recording of the most relevant aspects of the informant's actions.

4.2   Additional data corpus

One of the prominent literacy practices among the students in the primary data corpus was the frequent use of the web-based encyclopedia Wikipedia. While the primary data corpus provides important insight into the Wikipedia habits of the four focal students, it is not in itself sufficient to fully explore the role Wikipedia might play in school literacy practices. This is mainly because Wikipedia is not an explicit topic during the interview, and because little systematic research has been conducted on the use of Wikipedia in Norwegian schools. Thus, it is difficult to know anything regarding whether the extensive use of Wikipedia displayed by the students in the primary data corpus is due to factors in the specific class, or if Wikipedia is actually becoming an important textual basis for upper secondary school literacy.

A desire to investigate whether Wikipedia is as popular for school purposes among other students as it is among the students in the primary data corpus inspired me to design a digital survey that specifically focuses on Wikipedia in a school setting. In addition to the degree of popularity, I wanted to know more about what students in upper secondary school consider the main advantages and disadvantages of using Wikipedia to collect information needed for school purposes.

The Wikipedia survey was conducted in 2012. The electronic questionnaire (see Appendix III) was taken by a sample of 168 students from eigth schools in the counties of Oslo and Akershus. The chosen schools were selected from different areas, and even though this is not a statistically representative sample, the variation in grades and socioeconomic background reflects the variations in the overall population of students in the sampled counties. As in the primary data corpus, all the sampled students are attending their final year of upper secondary school and local regulations state that they shall have access to a computer provided by the school. The questionnaire was piloted by students who were encouraged to find potential sources of difficult, confusing, or misleading language, as well as language with multiple meaning.

4.3 Research credibility

4.3.1 *Reliability*

The entire purpose of this Extended Abstract in general, and this chapter in particular, is to provide a detailed description of theoretical perspectives, research strategies, and methods used in the articles. According to Moisander and Valtonen (2006), descriptions of methods and research strategies should always be combined with *theoretical transparency* to satisfy reliability criteria. Being specific regarding which theoretical perspectives influence the analysis and interpretation of the data, as I endeavor to be in chapter 3 of this Extended Abstract, will thus contribute to the overall reliability of the study.

The possibility of replication is often mentioned when considering reliability (Hammersley, 1990); nevertheless, it is often difficult in qualitative research to establish reliability by repeating the "same" measurement (Boeije, 2010). For example, in the case of my primary data corpus, it would be impossible to replicate the same setting, as the context is forever lost. Methodological transparency can be an alternative to actual replication, as it enables virtual replication at least. If methodological transparency is sufficiently good, one can assess the researcher's choices and argumentation, which again facilitates not only attempts of replication, but also comparative studies (Seale, 1999).

One of the greatest advantages of using video for research purposes is that the researcher can access the data several times and obtain more consistent interpretations by doing so, thereby increasing reliability. A criticism of traditional ethnography concerns the lack of transparency that is inevitable when all that is left of the "naturally occurring situation" under analysis is what is written down in the researcher's field notes. What the researcher has seen and experienced then and there is forever lost, which reduces the

possibility of other researchers to independently evaluate the quality of the analysis (Heath et al., 2010). Just like a notebook, a detailed observation scheme, or any other data collection approach, video recordings cannot capture "everything". While video data are often described as rich or multilayered data, they can also be very partial and limited as only a limited field of vision is provided (Haw & Hadfield, 2011). That being said, video data can significantly increase the reliability of a study because video provides a clearer limit between the process of gathering data and analyzing data; moreover, the material used in the analysis—the actual recordings—can be repeatedly referred to for making interpretations.

My research would not be reliable if I attempted to solely *observe* four students simultaneously in an attempt to code what kind of texts each of them were using during lessons across subjects—it would not be an achievable task. However, this was made possible with video because it gave me the opportunity to see each frame as many times as needed to ensure consistent coding of the videos. Using codes to categorize different types of *text in use* (see Appendix 1), I have attempted to ensure that different types of texts are consistently assigned to the same category throughout the data material. Precisely because video can be viewed repeatedly, I have also been able to double check that texts are categorized in the same manner each time they occur in the video recordings.

All my interviews were transcribed and all the transcriptions cited in articles were discussed with other researchers at different stages in the analytical process. By doing so, I have been able to view the data from different angles and obtain confirmation that my initial interpretations seem reasonable, or obtain valuable alternative interpretations from other researchers.

4.3.2   *Validity*

Just as reliability is not easy to define, there is "a confusing array of terms of validity" (Creswell & Miller, 2000, p. 124). Nonetheless, there is general consensus that the credibility of qualitative research needs to be proved. Validity is centered on being specific regarding what the research design in question is assessing; thus, an evaluation of validity is an evaluation of whether a specific method employed is a good way of measuring the phenomenon of study (Boeije, 2010). With a reference to Hammersley and Atkinson (1983), Creswell and Miller (2000) indicate that validity does not refer to the data itself; rather, it refers to "the inferences drawn from them" (p. 125). Procedures for determining validity are all strategies that researchers employ to establish the credibility of their studies (Creswell &

Miller, 2000). In my study, several common validity procedures have been used and I provide a brief overview of these in the following account.

Seeking thematic convergence through *triangulation* is a common form of validating qualitative studies (Creswell & Miller, 2000; Hammersley, 2008; Patton, 1999). Methodological triangulation was initially employed by researchers who wanted to examine the validity of their original empirical material by using additional empirical data on the same topic from other sources; thus, the goal was to minimize errors from one type of data by also using another type of data (Denzin, 1970; Flick, 1998). However, in contemporary research, the term "triangulation" is often used simply to describe an approach where the researcher draws on different kinds of data in the same study, without accounting for how the different data sets complement each other (Hammersley, 2008). Triangulation can also refer not only to drawing on multiple data sources, but combining theories, methods, observers, and empirical materials in an attempt to obtain more accurate and comprehensive representations of the studied object (Silverman, 2006). As accounted for in sections 4.1 and 4.2, my research encompasses the following empirical material:

Primary data corpus	
Video recordings	64 hours of recordings using head-mounted cameras placed directly on four focal students during a total of 18 lessons in 3 subjects.
Interviews	Semi-structured interviews with the four focal students, where I also used the following items to contextualize the interviews: •A total of 33 textual artifacts collected in the context of the video recordings. •A total of 92 still pictures extracted from the video recordings, illustrating typical literacy events engaged in by each of the four focal students in each subject.
Secondary data corpus	
Survey	A survey on students' attitudes toward Wikipedia in a school context (n = 168), (Appendix III)

Table 1 - Data sources

My reasons for combining these different types of data is not what Hammersley and Atkinson (1983, quoted in Silverman 2006) refer to as a "naively optimistic view that the aggregation of data from different sources will unproblematically add up to produce a more complete picture" (p. 199). I attempt to combine detailed descriptive data on what the

students actually do with texts with data that explores how the students themselves verbalize and display their own literacy practices. As literacy practices involve feelings and attitudes, collection of such data must involve talking to the students. Rather than just asking them "what they do", my research design enables documentation of the behavior of the focal students and the interviews are about textual activities I empirically know that they have engaged in repeatedly in class during the weeks of data collection. This is an attempt to validate the data: not only do I attempt to validate the videos by obtaining the students' views on whether the documentation is accurate and in line with their own views on school literacy, I also obtain a validation of the interview because the video data provides me with an opportunity to "check" whether the student's utterances regarding regular literacy practices is in accordance with the video-recorded lessons. An important point, when it comes to triangulation as a method for validation, is that the goal of triangulation is not to "demonstrate that different data sources or inquiry approaches yield essentially the same result" (Patton, 1999, p. 1193), rather it is to test for such consistency. I have used different data sources that could not by themselves provide the "same results", but taken together, the findings from video recordings, interviews, and the survey all contribute different nuances to the same phenomena, namely, prominent literacy practices in the classroom.

According to Lincoln and Guba (1985) *member checking* is "the most crucial technique for establishing credibility" (p. 314). I have, to a certain extent, validated results through member validation by asking the students I have video recorded to comment on their own activities—activities that I considered prominent after screening their video recordings. What they validated were not my final interpretations; rather, the students commented on my preliminary raw data and helped me make sense of it by providing me with their elaborations during the interviews. Further, when piloting both my interviews and my quantitative survey questions, I obtained valuable feedback from pilot participants on how they experienced my formulated questions, how they interpreted different categories that I made them choose between, and how they would make changes in the questions if they were responsible for the interview or the survey. I contend that this is also a form of member checking—not of results, but of experience with the research design.

Researchers might also add credibility to their studies by seeking the assistance of *peer debriefers* (Creswell, 2013), who not only provide support, but also challenge the researchers' assumptions methodologically and theoretically. This can be done in a number of ways, and in my research all the essential steps in both research design, data collection, and data analyses was subject to evaluation and comments by a variety of qualified peers.

A threat to validity associated with all research that is not covert, is the issue of reactivity. The phenomenon of reactivity refers to how people have a tendency to change their behavior whenever they know that they are being studied (Boeije, 2010) Reactivity is particularly relevant in research designs that rely on video recordings, as the camera effect has a negative influence on validity. However, I do not consider reactivity to be a great threat to the overall validity of my study. There are mainly three reasons for this: First, it is believed that people get used to being researched after an initial period (Haw & Hadfield, 2011; Heath et al., 2010; Patton, 1999) Second, the focal students in my study were not looking at the camera at any time even though they could feel the camera that was positioned on their heads. My impression is that attention paid to the camera was higher among their peers and teachers than among the students that were actually recording their own actions with a head-mounted camera[8], as these students even said that they completely forgot that the camera was on their head from time to time. The third reason for not considering reactivity to be a significant threat to the overall validity of the study is that I discussed the content on the video recordings with the students in interviews. I specifically asked them to comment on how typical the recorded activities are, how often they would behave the way they do in the recordings, whether a given activity would be likely to occur again in another lesson in the same subject, and so on. By doing this, I obtained a validation of the data because the students confirmed, elaborated, and added important nuances to the video recordings. While two students mentioned that it was really strange to see the pictures extracted from the videos (showing their activities during a specific lesson), none of them implied that the presence of the camera itself changed their behavior during the video recordings.

As validity is concerned with drawing inferences from data (Creswell & Miller, 2000; Kleven, 2008), I comment briefly on the most important inferences drawn in my data sets. In accordance with the discussion of inferences in Article III, where I argue that there are consequences to omitting the explanation of inferences, I endeavor making such inferences in my own research as explicit as I can. Since my main theoretical term is *literacy practice*, which is an abstract and non-observable concept, I rely on making inferences from observable indicators in my primary data corpus these are the video-recorded literacy events (for more on operationalizations, see section 3.2.2). In the

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[8]This is why I argue that in my data material, the camera design is adequate to study individual activities, but is not a great fit to study social interaction.

secondary data corpus, I make inferences from survey data—mostly in the format of Lickert scales—to students' attitudes and practices. While the primary data corpus provides a rather thorough account of what literacy practices the participating students engage in during the weeks of data collection, the survey does not offer any such detailed knowledge. Rather, it provides a general insight into the most common attitudes toward a specific textual basis for literacy events and practices. Thus, I attempt to be more cautious when drawing inferences to literacy practices from the survey than from the primary data corpus.

4.3.3 *Generalizability*

Generalizability is among the most difficult subjects in qualitative research (Boeije, 2010; Gobo, 2007; Silverman, 2013). The core question of generalizability is "when findings and conclusions are based on the examination of certain cases do they hold for other cases that were not examined?" (Boeije, 2010, p. 180). Hence, generalizability is about extending accounts from one particular situation, which has been subject to research, to other similar situations that have not been subject to the same research. In both my primary and secondary data corpuses, the samples are purposeful (Silverman, 2013), which implies that they are chosen because they illustrate a feature that I am interested in. The sample size in both data corpuses is rather small; therefore, intuitively one might say that the possibility to generalize—that is, to extend the account from the settings of my research to other settings—is very limited. If we only consider statistical generalization, this is indeed accurate. However, as Flyvbjerg (2007) argues, formal generalization must not be overvalued. Silverman (2013) labels it a mistake to "assume that the further we move away from a specific case, the more valid is our knowledge" (p. 386); both Gobo (2007) and Flyvbjerg (2007) remind us, with convincing examples, that some of the most significant and theoretically productive qualitative studies are, in fact, based on single cases. For example, a single case is enough to falsify an entire (false) generalization.

In my study, in terms of their access to computers and Internet at school, the participants in both the primary and the secondary data corpuses are typical in the Norwegian context. The prominent role of teacher instruction in a whole-class setting, suggested by the primary data corpus, is also typical in a Norwegian context. Thus, some of my findings could be transferable to similar situations in a national context, which calls for analytical generalization (Kvale & Brinkmann, 2008). While I argue that some of my interpretations might be suitable for analytical generalization because the study setting is somewhat common, I also acknowledge that in an international perspective the level of

individual freedom typical in the Nordic countries (Carlgren et al., 2006), combined with the high ICT access, makes my empirical data *deviant* (Flyvberg, 2007). Nevertheless, it is very relevant, as many countries strive for similar conditions when it comes to ICT access in the school context.

4.4   Ethical considerations

Since the primary data corpus requires processing of personal data, it is covered by the Personal Data Act. As this is a scientific PhD project at a University, it has been reported to the Norwegian Social Science Data Services (NSD)[9], where the project was evaluated and written consent was given prior to the commencement of data collection. The secondary data corpus is a survey that does not need NSD's approval, as I never knew the names of any participants involved (I was only in contact with their teachers, who were instructed on how and when to make the survey available for their students). Regardless of always following NSD guidelines, there are a few ethical concerns related to my research that are worth discussing further.

4.4.1   *Free and informed consent*

All research projects involving individuals must be based on free and informed consent, as described in section 9 in the Guidelines for Research Ethics in the Social Sciences, Law and the Humanities, and in the Personal Data Act. To conduct my research, I not only obtained free and informed consent from the four focal students who wore the head cameras and participated in the interviews in the primary data corpus, but also from their teachers and peers who might also appear on the recordings from time to time. I followed standard ethical guidelines for social sciences, and used both written (reported and consented to by NSD) and oral information.

The oral information was given when I first visited the school, with the teacher's permission, and my reason for visiting the class and giving them information myself was to ensure that the information was given to each student in a way that he or she could understand. This implies that in addition to a rather formal letter explaining their rights, I also provided them with oral comments in informal language. I emphasized that all participation should be entirely voluntary and that there are no disadvantageous

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[9] NSD is the *Data Protection Official for Research* for all the Norwegian universities, university colleges, several hospitals and research institutes. The requirement for obtaining licenses from the Data Inspectorate for a greater part of research projects are replaced by a notification requirement where NSD is the last instance for reviewing applications for licenses.

consequences for those who chose not to participate. I also emphasized that those who decided not to consent to participate would not have to provide any explanation, neither to me nor to their teachers. The students were also informed (both in writing and orally) about the purposes of the research, how the data was going to be stored and analyzed, and that they could, without any further notice or consequence, choose to stop participating with immediate effect.

Informed and free consent ideally implies that the researcher does not pressure people into agreeing to participate in a study (Silverman, 2006), but this is more complex than it might sound, as identifying what "pressure" is in a given context can be challenging. For example, pressure might not be intended by the researcher in question and subjects might have felt social pressure without being fully aware of it. Ryen (2011) discusses consent not as something a researcher has obtained once and for all, but as a conception of layers—layers of consent.

Obtaining free and informed consent in a classroom situation might not be ideal, since there can be a lot of peer or social pressure. In addition, the teachers who are responsible for the class have already consented to being visited by the time the researcher meets the class; hence, the uneven power relation between the teacher and students might come into play and students might feel that they are expected to consent. As discussed by Ryen (2011) and Homan (2001), people in certain positions are able to provide a researcher access to a group that is very willing to consent to participate in that given context. I believe this to be the case when a researcher is granted access to an entire class during school hours and given time by the class teacher to present a project. This is also why the response rate in the survey is very close to 100%. The fact that students usually have to consent to what teachers propose and that the power relation between students and teachers is uneven makes it problematic that the activities initiated by a researcher are often perceived by the class as approved by the teacher (Homan, 2001). I attempted to counter some of this pressure by explaining to the students that they were free to not participate and also that if they did consent and signed the written consent form, they could send me a message or an e-mail (my contact information was included in the written information) and tell me that they would like to withdraw their consent. I emphasized that they would not face any consequences for such a decision. I also emphasized that their teacher was unknown to me and that their school was chosen randomly.

5 Summary of the articles and discussion of the findings

This chapter begins by providing a summary of each of the three articles that comprise my thesis, with a focus on the research questions and main findings discussed in each of them. With the summary of the articles as a backdrop, I discuss the overall contributions of my thesis. The discussion is organized around three topics that I consider essential to the literacy practices used by students in my study. First, I discuss that a key characteristic of the literacy practices studied in this thesis is that they are individual, rather than institutionalized. Second, I argue that another important feature of these literacy practices is that they more often than not revolve around digital texts, which I discuss with an emphasis on possible implications. Third, I consider it important to elaborate on the implicit and vague character of recurring literacy practices found in the data, that is, how prominent literacy practices are not manifested or framed within the official educational discourse. The most important theoretical and methodological contributions of the thesis are discussed in section 5.3. Finally, I provide some overall concluding remarks.

5.1 Summary of the articles

The overarching aim of the thesis is to explore prominent literacy practices in a school context among students in their final year of upper secondary school in Norway. The fact that the students who participated in this research had constant access to ICT in their school setting, which they integrated into their school literacies in a number of ways, has guided some of the research questions posed in Articles I and II. Article I addresses the use of personal laptops to engage in alternative texts and entertainment during teacher instruction; Article II investigates how the popular online encyclopedia, Wikipedia, plays a central role in school literacy when students are undertaking school tasks; and Article III discusses the practical and methodological implications of researching terms that are paradigmatically vague, such as "practice" or "literacy." I do not repeat the full content of the articles in this chapter; rather, I provide a brief summary of each article, with an emphasis on the research questions and main findings.

5.1.1 *Article I*

Blikstad-Balas, M. (2012). Digital Literacy in Upper Secondary School—What
Do Students Use Their Laptops for During Teacher Instruction? In
Nordic Journal of Digital Literacy, vol. 7 (2). 81-96

As the title suggests, this article explores prominent literacy practices among students in a school context where teacher instruction using digital presentations (for example, PowerPoint presentations) is a recurrent activity. The empirical material referred to in this article is the primary data corpus, which includes both video observations and interviews with students (this is accounted for in section 4.1). Since the students have unrestricted access to ICT, a central topic is *how school literacy might be changing due to the introduction of personal computers (laptops)*.

To describe and discuss how new literacy practices are permeating the school domain, I draw on Street's (1993) distinction between dominant and vernacular literacies. This division captures the difference between the literacies that are determined and regulated by others and those that are the result of individual choice. I argue that although it is both impossible and undesirable to use these categories as if they were mutually exclusive, this dichotomy sheds light on how students engage in both dominant literacies, traditionally associated with school, and vernacular literacies, mediated by Internet access in the classroom.

The focus of the analysis is on how vernacular literacies gain terrain within the school paradigm. I examine the literacy practices students engage in while the teachers are giving digital presentations in different subjects, and whether these literacies are dominant or vernacular. A central finding reported in the article is that the teachers' use of visual technologies, such as PowerPoint presentations, in whole-class settings generates a variety of individual digital literacy practices among students. Consequently, teachers and students do not share common literacy practices based on teachers' digital presentations.

My final argument in this article is that if schools fail to engage students in relevant educational Internet-based literacy practices, students will continue to use the Internet mainly for their personal vernacular practices, even at school. I also argue that I do not consider banning Internet access from the school setting as a solution to the challenges discussed in the article.

5.1.2   *Article 2*

Blikstad-Balas, M. & Hvistendahl, R. (2013). Student's Digital Strategies and Shortcuts—Searching for Answers on Wikipedia as a Core Literacy Practice in Upper Secondary School. In *Nordic Journal of Digital Literacy*, vol. 8 (1-2). 32-48

In this article, written in collaboration with my supervisor Rita Elisabeth Hvistendahl, we combine data from the primary data corpus (the qualitative interviews, see section 4.1.2) with a quantitative survey (see section 4.2) to explore why and for what purposes students use the popular online encyclopedia, Wikipedia, and more traditional print-based texts for school purposes.

The overarching goal of this study is to explore students' literacy practices in terms of sources of knowledge; we do this by investigating how Wikipedia has become a part of school literacy when students are engaged in informal school assignments. We also investigate how Wikipedia entries are used by students and how different tasks may lead to different strategies and different sources of information.

One of the main findings is that students gladly use Wikipedia, as they consider it suitable for the vast amount of informal tasks that they are required to complete at school. We also find that students' strategies and literacy practices are strongly determined by whether the task they are working on is intended for formal evaluation. According to the students, while literacy practices of "transporting and transforming", or cutting and pasting content, are predominant in informal tasks, the very same reproductive practices are totally banned in formal tasks. This distinction between formal and informal tasks is central in our discussion on findings, where we also address the difference in the hegemonic status between the textbook and Wikipedia in school.

We argue that if the type of task is what actually determines and predicts most of the students' literacy practices within the school domain, then improving these literacy practices can only be accomplished by changing the type of tasks. We suggest that Wikipedia, or any other textual basis, cannot in itself be deemed adequate or inadequate for educational practices. Rather than discussing the qualities or deficiencies of Wikipedia, we argue that it is crucial to consider the actual practices that different texts generate, enable, and maintain.

5.1.3 *Article 3*

Blikstad-Balas, M. (2013). Vague Concepts in the Educational Sciences: Implications for Researchers. In *Scandinavian Journal of Educational Research*. DOI: 10.1080/00313831.2013.773558

This article begins by claiming that many of the terms we rely on in educational research are vague terms and provides examples, such as motivation, identity, social structure, culture, and practice. Even though vagueness is often considered to be a problem

only for those devoted to the philosophy of science, it is a central claim of this article that vagueness also concerns educational researchers, as it is a practical problem rather than a purely philosophical one. The aim of the article is twofold: to provide an overview of what vagueness is based on perspectives from the philosophy of language, and to discuss how researchers might handle the implications of the use of vague terms in empirical research.

Before briefly discussing whether vagueness is ontological or semantic, I begin the article with an account of the three shared features of all vague terms. I use the term "practice"—which is widely used both as a theoretical and an empirical term in the field of educational research—as an example of a vague concept that cannot be made more precise, regardless of the quality of definitions or theoretical agreement. I argue that acknowledging vagueness in itself has limited value if we do not also pursue the methodological problems that often arise when we use vague terms in empirical research. By referring to contemporary empirical research from the educational sciences, I illustrate and discuss what I consider to be the three main methodological problems related to the use of vague terms. Finally, I argue that the educational field could benefit from (a) greater emphasis on how inferences are made from empirical data regarding vague concepts, (b) determining how our stipulative definitions overlap and contradict each other, and (c) identifying the borderline cases in different studies.

5.2   Discussion

In this thesis, I have focused on literacies associated with two contexts that are essential in most educational milieus: plenary teacher instruction and students working on tasks. In a sense, these two practices capture what constitutes the essence of school: students are taught content in different ways and are regularly supposed to demonstrate their knowledge acquisition or develop their knowledge further through a variety of tasks.

Wade & Moje (2000) summarize the dominant approach to teaching, reading, and subject area content—the previously mentioned "transmission model"—and particularly emphasize how the practices of transmitting information are central for teachers, while students' literacies often revolve around documenting whether they have processed and acquired this information accurately. I will refrain from labeling the teachers who participated in my study as having the transmission model as their only pedagogical approach; however, at the same time, the practices documented in the empirical data suggest that both transmitting knowledge and documenting knowledge acquisition are prominent practices. This is not a controversial finding, as a combination of transmitting and

documenting information is found to be a dominant pedagogical approach (Wade & Moje, 2000). In the empirical material in this thesis, the amount of time spent on teacher presentations in each lesson combined with the amount of tasks the students work on indeed suggest that these two settings are an essential part of everyday school life. This is also the rationale behind the focus this thesis places on students' literacy practices related to teacher presentations and school tasks. In the following subsections, I discuss some of the key features of the prominent literacy practices found in my research.

5.2.1 *Literacy practices in upper secondary school: individual rather than institutionalized*

The findings of this thesis suggest that a key characteristic of the literacy practices that the participating students engage in are that these practices are rather individualized, in the sense that the students appear to have great individual freedom when it comes to defining and adapting their own ways of engaging with texts at school. I argue that their practices are individualized in the sense that they are in accordance with the individual student's preferences, rather than being a manifestation of official and institutionalized practices. By labeling these literacies "individual", I do not in any way imply that they are detached from social practices; my aim is to simply distinguish them from the institutionalized and official dominant school discourse. While students who read newspapers, interact with each other on Facebook, play online games, etc. are always situated within broader social practices, they are also avoiding or complementing the dominant institutionalized literacy practices, which are supposed to be shared by virtually all students at virtually all times. Thus, when I argue that many literacy practices in my data are individualized, it is to distinguish between collaborative shared practices explicitly framed in an educational discourse and those practices that appear to be a direct result of individual choice. In accordance with the discussion in Article III, where I refer to some unfortunate consequences of using dichotomies in educational sciences, I would not use the labels "individual" and "institutionalized" as mutually exclusive; my attempt here is only to show how the students' individual choices take precedence over the intended shared institutionalized practices.

The students in the primary data corpus repeatedly confirm that they are the ones who decide which literacy practices they want to draw on and how. Although the survey data does not explicitly concern the degree of individual freedom related to school literacy by asking the students which texts they are allowed to use, it does strengthen the impression that they are, in fact, free to use whatever sources of information they consider suitable for

undertaking and completing school tasks. For example, a majority of the students report that they enjoy using Wikipedia for school tasks, even though many of the same students express that their teachers would disapprove or at least prefer the use of other sources; this indicates tension between the students' individualized practices and the formal institutionalized practice based on more traditional texts. In addition, the open-ended questions that allowed the students to elaborate in their own words the advantages and disadvantages of Wikipedia, suggest that the students actively *choose* sources of knowledge. Thus, while many students consider it a clear disadvantage that their teachers prefer other sources, none of the students imply that they cannot choose to access Wikipedia, or that they are systematically kept away from Wikipedia as a source.

The different data sources that I have used all suggest that the students individually choose which literacy practices to engage in, and often these choices are in opposition to the institutionalized and intended school literacy. This is evident, for example, when the teacher writes precisely where in the textbooks the students could find the answer to specific questions, for example, "page 72" or "pages 65–67," while the students still go straight to Wikipedia to look for the answers.

As the analyses in both Articles I and II suggest, the students often choose not to engage in the advised or prescribed practices. Although they acknowledge that they are supposed to take notes and pay attention during teacher instruction, and that their textbook is the teachers' advised source of information, their literacy practices mainly involve other texts. These other texts are often in the vernacular category, regardless of their potential educational value, in the sense that they are self-selected and not "officially defined" as a part of the lesson.

It is not in any way surprising that vernacular practices are found inside the classroom. As Barton (2007) indicates, students have always brought with them texts from outside the school context. Before the Internet became a part of school, students still engaged in "illicit school literacy" by writing secret notes, reading texts other than what they were supposed to, drawing and writing on their desks or on the classroom wall, etc. An important contribution of this thesis is the detailed insight into the amount of vernacular texts and the diversity of practices they generate, which again indicates a blurring of boundaries between what is inside and outside a school context. For example, it is expected that social media like Facebook is represented in the school literacies of students in the contemporary school environment. What is fairly unexpected is the systematic integration of such vernacular practices into the day-to-day activities of schooling. As the students explain

in the interviews, it is the norm rather than the exception that they spend time reading online newspapers and blogs, playing games, or engaging in other digital texts that are not in any way included in the school's official literacy practices. Therefore, it goes without saying that individual choices have always impacted the literacy practices of each student in a given class, even in the school context where there is a strong inclination toward dominant and shared imposed literacy practices. However, the findings of this thesis suggest that the level of individualization is very high; in fact, it is so high that one might ask whether the individual practices actually occur not only as a supplement to, but also occasionally as a substitute to institutionalized practices.

As I discuss in Article I, it is somewhat ironic that the largest variation in *individual* literacy practices among the students is found during *collective* teacher instruction, which represents a dominant and institutionalized literacy practice. While they are supposed to take notes during teacher instruction, the students engage in all kinds of different literacy practices. An illustration of this is the following figure, which summarizes the typical variation in text use of the four students Stine, Andreas, Hedda, and Thomas during a video-recorded History lesson (45 minutes) that involves only the teacher's whole-class instruction with a digital presentation:
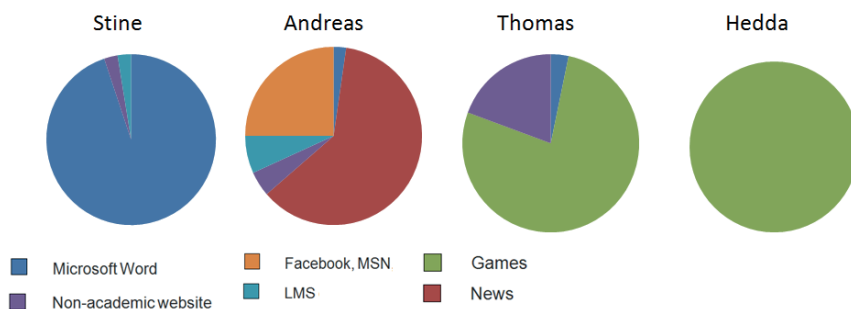

Figure 6 - Variation in digital texts

As is evident from the figure, there is plenty of room for individualization, as it is each student's individual choice that is reflected in how they spend their time; the video recordings show that Stine does not share Andreas' habits of reading a number of different newspapers every day, just as Hedda's strong commitment to different games is not shared by any of the other students, even though the other students play some games occasionally. However, what the students do share is the practice of accommodating the school setting to their own individual preferences. While the teacher, if located in front of the class, cannot

really see what the students are engaging in on their laptops, most of the students can see each other's screens and, as the interviews suggested, they have good insight into each other's individualized practices during teacher instruction. For example, Stine is perfectly aware that she engages more in the intended practice of taking notes during this lesson than most of her peers, which she comments on in the interview; she even assures that she, too, probably spends a lot of time engaging in unintended activities.

While Ivanič and colleagues (2009) found that a key characteristic of literacy practices of college students is that they are shared, varied, and learned through participation, findings in this thesis suggest the contrary; namely, that a key characteristic of literacies in Norwegian upper secondary school is that they are often individualized and a result of personal choice. This tendency can be considered in association with the increase of classroom practices based on the single individual that is typical in the Nordic countries (Carlgren et al., 2006). It can also be seen as related to the strong investment Norwegian schools have made in ICT, thereby resulting in a dramatic increase in digital texts in the school domain, which is discussed in the next section.

5.2.2 *Literacy practices in upper secondary school: digital*
Given the previously reviewed strong position of the textbook both internationally and in the Norwegian school context, the amount of digital texts found in my data is rather overwhelming. A somewhat obvious point, that nevertheless should be made explicit, is that the new technologies reduce the traditional school space-time-boundaries and dramatically increase the students' options when it comes to choosing a textual basis for their literacy events and practices. This has three interrelated consequences.

First, it impacts the students' vernacular practices, as I discuss in Article I, as these students are able to access all kinds of digital texts such as news, social media, or games, rather than engaging solely in the intended activity, namely, taking notes during teacher instruction. As teacher instruction takes up a large part of their lessons, so does engaging in alternative digital entertainment.

Second, the new technologies and digital texts greatly impact and modify the dominant literacy practices, as shown in Article II. Rather than using the intended traditional textbooks, the students seek alternative information, which is more often than not digital information. They do not refrain from doing the tasks they are given, thus they engage in the dominant literacy practice of providing answers to school tasks – but rather than using the

officially acknowledged and recommended textual basis for such practices, namely the textbook, the students may often choose to use their preferred source, Wikipedia.

Finally, I argue that the teachers' digital texts also enable and maintain these new vernacular and digital practices displayed by the students. As Säljö (2010) remarks, today's students want to know if, for example, PowerPoint presentations from a lecture will be made available on the LMS, not only because they want to know per se, but because this greatly affects how they engage in the lesson, how they take (or refrain from taking) notes, and how they read the proposed literature. As the students in my primary data corpus explain, they do not need to pay attention to the whole-class teacher instruction because the information will be made available later on the LMS[10]. Thus, the students can systematically operate on another time scale than the teacher. In contrast to the traditional black board, where the text would literally be washed away forever if a student did not write it down, the digital presentations made by teachers can be found on the LMS, when and if a student decides to look for it. This implies that although there is tension between the dominant literacies that are framed and strongly sponsored by the school institution and those that are not, the findings presented in this thesis suggest that the teachers' literacy practices, which aim to make all the information available, actually facilitates and maintains competing vernacular literacy practices among the students.

In an article on Interactive Whiteboards in the UK, Gillen, Staarman, Littleton, Mercer and Twiner (2007) distinguish between "technology-led" and "education-led" introduction of technological equipment in classrooms. While the former refers to introducing something because it is available, the latter refers to equipment being introduced because it is "known to meet the professional needs of teachers and the educational needs of children better than existing educational tools" (Gillen et al., 2007, p. 244). While there is great pedagogic potential for the use of ICT in Norwegian classrooms, my research suggests that regardless of whether the introduction of ICT is technology-led or education-led, it's actual *take up* in classroom practices appears to be heavily technology-led. Previous research shows that when teachers are encouraged to discuss how they develop their students' digital skills, they are primarily concerned with what equipment they have or lack

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[10] As I comment in Article I, one could ask whether it is possible to say that the teacher is making the *presentation* public because the verbal comments and the gestures used by the teacher to supplement the written words and images in the presentation are lost if the students do not listen to them during the classes, remember them, or write them down. What they have access to is not a movie or an audio file combined with text, it is solely the textual artifact used by the teacher. Thus, fewer modes are available in the presentation the students find on their LMS than in the presentation held in class.

access to, rather than focusing on how the digital skills are systematically developed (Hertzberg, 2010). My research adds to this picture by providing examples of how the new technology is not sharply framed in the everyday official discourse of the classroom. Facer's (2004) research shows that there are no sharp distinctions in the home use and school use of the Internet, and my findings indicate the same thing: there is no evident "school way" of using digital text in the school as the students are free to define and accommodate their own ways, like they do beyond the school context.

Jewitt, Moss, and Cardini (2007) emphasize how the effective use of any given technology must be embedded in curriculum knowledge, pedagogy, and learning. When digital media are integrated into the official literacy curricula, significant learning and motivational gains have been documented (Mills, 2010). The official curriculum relevant for the students in my data is definitely concerned with digital technology; however, there is always some discrepancy between the intended curriculum and its actual implementation. While the students in my research rely heavily on digital texts, a vast majority of such texts are not in any way embedded in the school setting, for example, by being talked about, discussed, written about, or acknowledged at school—the digital texts and the digital technologies are an implicit part of the classroom discourse. This "implicitness" is discussed in the next section.

5.2.3 *Literacy practices in upper secondary school: implicit*

A common characteristic of the prominent literacy practices reported in my thesis is that they are more often than not implicit. This pertains not only to the students' actual literacy practices, but to their supposed and intended literacy practices as well. In the present section, I discuss some possible implications of failing to make literacy events and practices explicit.

When I argue that prominent literacies in my research are implicit, it has the following implications. First, it is striking how video recordings from lessons across subjects, over several weeks, fail to include detectable attempts to guide, control, or impact students' literacy practices. This is a bold claim because the teachers do make texts available for their students and refer to textbooks, handouts, their own presentations, and so on. However, they do not model, suggest, or guide how students should use these texts, how these texts should be read, or the purposes of doing so. Moreover, they do not indicate what the students' should avoid doing while reading and writing at school or what the consequences of excluding the proposed texts from one's own literacy practices are.

Second, Norway has a curriculum that explicitly states that reading and writing are basic skills that must be incorporated in all subjects at all levels, as mentioned in section 1.1.2. Nevertheless, my findings suggest that very little explicit attention is given to reading and writing. The students are never told *how* to do different activities. In addition, during the whole-class sessions with teacher instruction, when students were systematically engaging in all kinds of other activities, the teachers never commented on this aspect. This quest for online entertainment rendered an invisible part of the lessons. Thus, the students were neither encouraged to use certain dominant literacy practices, nor were they encouraged to avoid using other literacy practices.

Finally, all utterances regarding students' and teachers' literacies in my material were obtained because I specifically asked about intended and non-intended literacy practices. It is not because the teachers made intended practices visible that I argue the students engaged in "something else than the intended practices". Rather, it is because I asked the students what they were supposed to do during teacher instruction, as reported in Article I; they expressed that paying attention and using the computer for taking notes would be the "ideal literacy practice". The use of Wikipedia provides a similar example, as the survey reported in Article II suggests a significant amount of confusion regarding whether the teacher would approve of the use of Wikipedia for school work. While some students in the survey claimed that cutting and pasting would be wrong per se, the interviewed students argued that reproductive literacy practices are acceptable if the tasks they are engaging in are informal, that is, if the students' texts will not be formally assessed by the teacher.

As mentioned in the review section of the thesis (chapter 2), research suggests that teachers and school leaders struggle to understand the implication of reading and writing as basic skills, or what the basic skills *stand for* (Hertzberg, 2010; Ottesen & Møller, 2010). The vagueness of these terms may be causing some of the uncertainty related to what the basic skills or competencies encompass. In Article III, my argument is that vagueness in terms is not a purely theoretical problem, but rather a methodological and practical one. While no vague concepts are sharply bound, literacies in upper secondary school appear not to be bound at all, as they lack specificity and are implicit rather than verbalized. Such vagueness and the implied lack of common interpretation when it comes to for example "digital skills" is not just a problem for teachers, it is very much a problem for students as well. It is unfortunate if the ideal and intended school literacies remain implicit, just as it is unfortunate that the students' varieties of vernacular literacies are rendered implicit, as

keeping these (at times conflicting) practices implicit might stand in the way of a shared literacy discourse. If we assume that there will always be several aspects of institutionalized school practices that students would benefit from having participated in, both while at school and later in their life (regardless of academic ambitions), it is very unfortunate that these school practices are not more explicit. This lack of explicitness makes these practices less visible, less easy to identify, and by extension also less open for participation by all students.

5.2.4 *Theoretical and methodological contributions*

One of the main principles of NLS is to strive to obtain an understanding of everyday life and study the literacy events and literacy practices in peoples' everyday lives (Barton, 2007; Jewitt, 2008; Larson & Mars, 2005). Considering literacy as being more than a set of skills, NLS is concerned with the diversity and complexity of the practices used in a variety of settings with a variety of purposes (Gillen & Merchant, 2012), also outside of school. Consequently, scholars associated with NLS have conducted groundbreaking research on literacy in a number of different contexts beyond a traditional school environment, thereby contributing to making more visible the important aspects of literacy that have previously been ignored or not given sufficient attention (for example, see Barton & Lee, 2013; Gillen, 2009; Hamilton, 2000; Heath, 1983; Street, 1984).

In contrast, my data collection is framed within a traditional school context. Nevertheless, my research follows the principles of NLS, as NLS scholars have "urged researchers to forge investigations of the new literacies[11] in institutional settings" (Mills, 2010, p. 252). Furthermore, I do not perceive the official school practices as part of a narrow dichotomy, strongly contrasted to out-of-school practices; rather, I show how the boundaries between what is inside and outside the school context are weakening with the introduction of ICT in schools. A theoretical contribution of this thesis, hopefully, is detailed insight into the variety of literacy practices found in the school context—a context that is strongly associated with the dominant modes of literacy (Barton, 2007; Street and Lefstein, 2007). My research suggests that the classroom context is indeed very much connected to the outside world, thereby making the dominant literacies somewhat less dominant, as the school context is more blurred than before, and the vernacular literacies

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[11] In this case, *new* literacies refers to digital literacies.

more available as an infinite amount of self-selected texts become available through the Internet.

Another contribution of this thesis, in the intersection between theory and methods, is the discussion of vague concepts presented in Article III, along with my use of the vague term "practice" in all three articles and throughout this Extended Abstract. I strive to illustrate that the way theories on literacy are applied in NLS is very close to the empirical indicators of the theories in question. This implies that my research is, as other research within NLS, a good example of research that is strongly framed theoretically and at the same time very explicit regarding how empirical indicators are used as a basis for inductive interferences. Thus, even though I use a highly abstract theoretical term such as "literacy practice" in my research, I also elaborate on what this term encompasses by providing detailed accounts of what my indicators are.

A methodological contribution of this thesis is the use of head-mounted video cameras combined with interviews to obtain a detailed account of the diverse literacy practices of students in the school domain. Access to substantial details made possible by using a video design like the one I employ, is a huge advantage in a school context that has become very complex and highly multimodal. The systematic use of video permitted me as a researcher to actually slow down the fast actions in the classroom setting, where there is a continuous switching between various texts, and map the students' literacy events frame by frame. The head-mounted camera design, followed up by interviews, enabled me to approach the students' literacy practices from a closer perspective. While present in the classroom during the data collection period, I could not imagine the variation in the activities occurring in the classroom because the students all appear to be doing the same thing; it is really difficult to stand in front of the class and try to ascertain who could be taking notes and who could be playing an online game or reading a blog. This makes it reasonable to assume that my mapping of students' activities reveals aspects that are not always visible from a teacher's perspective. Using more traditional methods such as observation, or even a more traditional video recording using a pre-fixed camera, would not have provided the detailed insight into the *variation* in the material, which is crucial to exploring students' prominent literacy practices.

While video data could also make it possible for other researchers to access my video recordings and conduct secondary analyses or assist me with interpretations of the recordings, the very strict regulations of previously mentioned NSD make this merely a theoretical possibility. The potential for increasing reliability by discussing the recordings

not only with, for example, close supervisors, but also with a wider research community, is restricted by the fact that most Norwegian researchers are systematically denied the possibility of showing video data to peers of their choice. I consider this to be a severe problem, as increased reliability and increased transparency through collective analysis and peer discussions is among the greatest advantages of using video in research. However, this is not a flaw in reliability only in my study, but in video studies subject to NSD regulations in general.

5.3   Concluding remarks

Hopefully, the research presented in this thesis contributes to an understating of the complexity of the current school setting, which I argue is becoming increasingly blurred as an escalating number of connections are made between what is physically located within the classroom walls and everything that is not. While the school context is traditionally known to be a rather stable and slow-changing context, this thesis argues that with the implementation of ICT and the individualized view on learning typical of the Nordic countries, contemporary students are indeed *redefining school literacy*. This thesis suggest that the most prominent literacy practices in upper secondary school are digital, implicit and a result of individual choice, rather than solely being a manifestation of indented school practices. However, this redefinition of school literacy is not addressed in the school setting. Rather, the new practices take place in a setting where both intended traditional school literacies and the students' varieties of vernacular literacies are rendered implicit. I argue that this is unfortunate, as keeping these often contradictory practices implicit might hinder a shared literacy discourse. I also consider it an educational challenge that literacy practices that could be beneficial to the majority of the students, also in academic discourses outside the classroom, are not integrated in a shared discourse. This makes these practices less visible, less easy to identify, and by extension also less open for participation by all students.

In addition to being published in scientific journals, the main findings presented in this thesis have also been a part of a public debate on the role technology plays in Norwegian schools. Local and national newspapers and radio stations have reported and, to a certain extent discussed, the findings of my thesis. I also had the pleasure of debating on national television, with the Minister of Education and the leader of the Union of

Education[12], the implications of substantial access to ICT in school. The high public interest suggest that some of the issues raised in my thesis are perceived as relevant both on policy level and within the teaching profession.   I believe that it is fundamental that educational research be discussed not only by researchers, but also by teachers, students, parents, and policymakers. Only then can the real impact on the actual discourse, and not only the intended discourse, in schools be ascertained. Even though I am optimistic when it comes to formal education, I am not naïve to the aspect where I believe than my own research and the occasional tabloid discussion of it in itself will change school practices. However, I take great comfort in the fact that not a single teacher or student dismissed the scenario of the contemporary school that my research implies. Rather, many teachers expressed that the challenges my research reveals are indeed challenges they recognize from their daily experiences in the classroom.

Although my thesis indicates a number of challenges regarding the implementation of ICT in upper secondary school, ICT can also contribute to and enhance learning in a number of ways. Further research should aim to explore how teachers and students can include digital technology in their everyday literacy practices at school across subjects, particularly in cases where the integration of ICT in school is yielding good learning outcomes; moreover, rewarding literacy practices should be investigated and exposed. There is a need to investigate not only what types of learning materials are being used, but also how a variety of texts and tasks are used in interaction with each other. Studies on how the increasing use of highly multimodal digital texts change not only what the students consume when it comes to texts, but also how they produce texts, are also crucial. I believe this thesis illustrates that rather than perceiving school as a dominant static context, researchers would profit from investigating in detail the redefinitions of literacy practices that goes on in contemporary education.

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[12] The Union of Education is Norway's largest trade union for teaching personnel. It is currently the second largest trade union in Norway.

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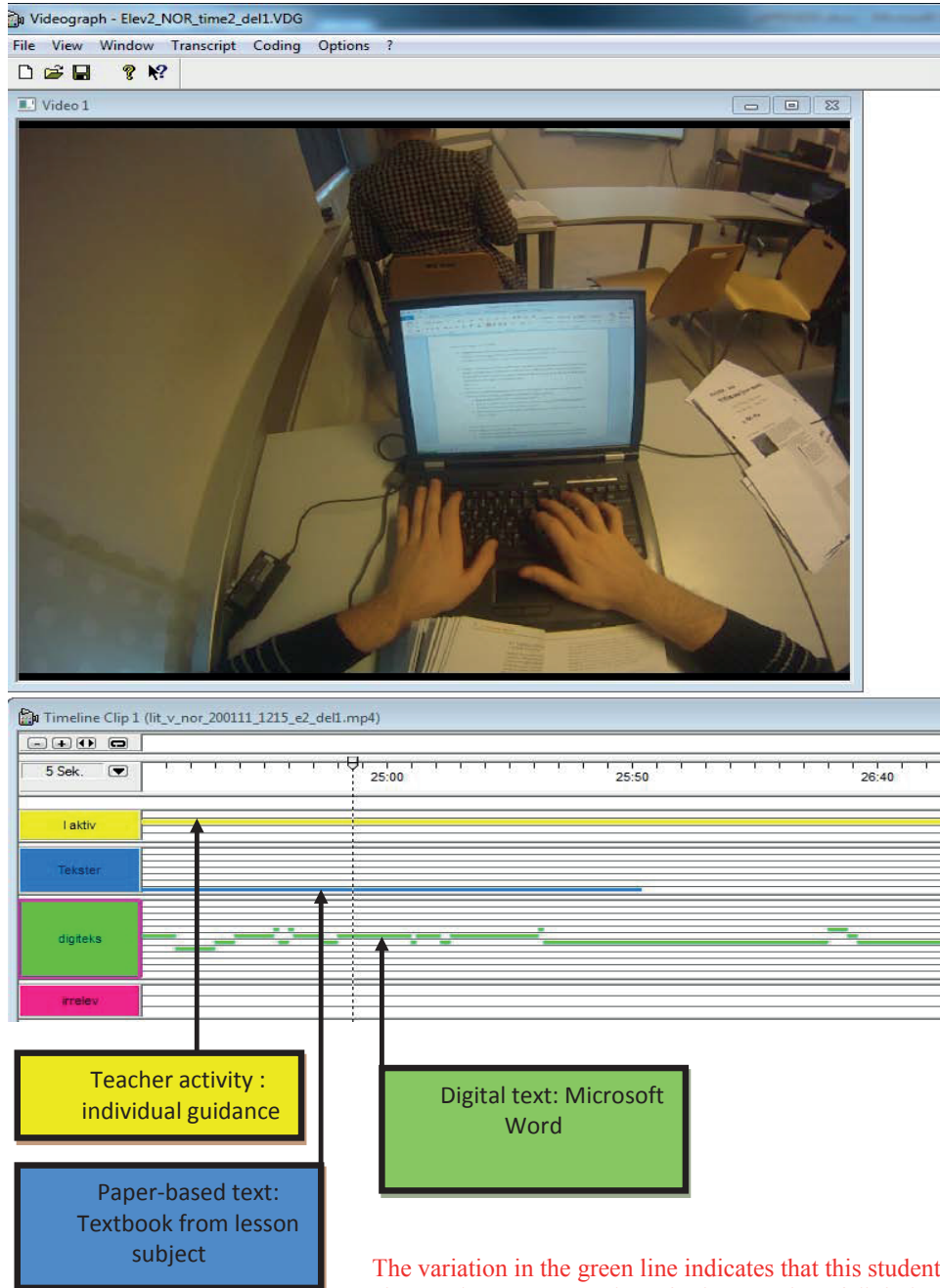
Appendices

Appendix I: Categories for video analysis of texts in use in the classroom

Teacher activity* (instructional format)	**Whole class instruction** – teacher monologue with digital presentation (Power Point)
	Whole class discussion –at least three students participating in free exchange of information with the teacher in a whole class setting
	Individual guidance – teacher walks around the classroom providing individualized guidance and supervision
	Other –teacher activities other than the three categories above
Digital texts	**LMS** – student screen shows learning management system (Classfronter)
	Games – student screen shows game of any kind, on line or installed on the computer
	News - student screen shows digital newspaper
	Social media - student screen shows Facebook, Instagram, MSN, Skype or other social media
	Google - student screen shows the search engine Google
	Wikipedia - student screen shows Wikipedia website
	Microsoft Word - student screen shows document or blank page in Microsoft Word
	Microsoft Power Point- student screen shows Microsoft Power Point presentation
	Textbook website - student screen shows the textbook publishers' supplementary website
	Website chosen by teacher - student screen shows a website the teacher told the students to access, either orally or in writing (other than LMS)
	Other non-educational website - student screen shows a website that is not thematically relevant to the topic of the lesson and not mentioned by the teacher
	Other
Paper-based texts	**Textbook from lesson subject-** student using/reading open textbook
	Hand out – fiction text- student using/reading fiction text provided by the teacher
	Hand-out – non-fiction text student using/reading non-fiction text provided by the teacher
	Textbook - from other subject - student using/reading textbook from another subject
	Self chosen book student using/reading fiction text provided by the teacher
	Other
Irrelevant parts of recordings	**Lesson not started**
	Lesson over
	Interruptions /other

Example of coding: screen shot of Videograph

Student working with tasks in Norwegian Language Arts

Teacher activity : individual guidance

Paper-based text: Textbook from lesson subject

Digital text: Microsoft Word

The variation in the green line indicates that this student changes between a number of subcategories of digital texts in the coded time segment.

Appendix II: Thematic Interview guide: topics for interviews

(Note that this is *not* a detailed list of questions, as the artifacts and still pictures were also used to structure the interviews)

TEXTS

- What do you consider "a text"?
- Examples
- Text at home
- Text at school

ACADEMIC TEXTS – EXAMPLES FROM LESSONS

- Artifacts: "The war.docx", "picture_7" [history map], "tasks about the new realism", "ethics.pptx", handouts: a) "the art of murder" [short story], b) "texts from the new realism", textbook Norwegian Language Arts: "Tema 3"

- Elaboration /comments on the different texts
- How are these texts used?
- Texts across subjects
- Are these text typical school texts? Why?

WORKING WITH TEXTS: STILL PICTURES (sorted on student/date/subject)

- (see through and elaborate on first impression)
- What is going on in these pictures?
- Are these activities typical in the given subject?
- Is something missing – are typical activities left out?
- What are the most typical activities in this subject?

    (these questions are repeated with pictures from Norwegian language Arts, History and

    Religion & Ethics)

SUBJECT SPECIFIC AND MULTIDICIPLINARY TEXTS

- Compare text across subjects
- Are there any multidisciplinary practices?
- What is an archetype History text/Norwegian Language Arts text/Religion and Ethics text`?

DIGITAL TEXTS

-Examples of what the computer is used for:

    -At school

    - At home

-Compare reading texts on screen and on page

    - Examples

    -Preferences

-Pictures of clearly non-academic activities

    -First impression

    - Recognition? How typical/atypical are these activities?

    -Who decides what is read in class?

    -Surfing: clear goals? Purpose?

    -Facebook/blogs/newspapers – how are these texts chosen?

    - Situations where it is irrelevant to use Internet?

    -Situations where it is particularly relevant to use the Internet?

    Internet in school: general thoughts? Improvements? Challenges?

Appendix III: Questions in the digital survey

(Translated from Norwegian)

Student Survey about Wikipedia
Personal information will not be saved. Read more on measures to ensure anonymity

Are you male or female?
- ○ Male
- ○ Female

Have you visited the website Wikipedia?
- ○ Yes
- ○ No

How often have you visited Wikipedia during this week (the last 7 days)?
- ○ I have not visited Wikipedia this week
- ○ 1-2 times this week
- ○ 3-6 times this week
- ○ 1 time each day this week
- ○ Several times a day this week

Have you ever added content on Wikipedia?
- ○ Yes
- ○ No

Have you ever reported errors or incomplete content to Wikipedia?
- ○ Yes
- ○ No

In which languages have you used Wikipedia?
You may choose several alternatives

- ☐ Norwegian
- ☐ English
- ☐ Swedish
- ☐ Danish
- ☐ German
- ☐ French
- ☐ Spanish
- ☐ Other languages

How much do you agree or disagree with these statements about Wikipedia?
Choose one alternative per line

	Strongly disagree	Disagree	Agree	Strongly agree
I find it easy to find information on Wikipedia	○	○	○	○
Wikipedia is trusthworthy because it is written by experts	○	○	○	○
Wikipedia is a good source of information in school assignments	○	○	○	○
Information on Wikipedia might be incorrect	○	○	○	○
I think Wikipedia is easier to read than textbooks	○	○	○	○
I like using Wikipedia for school work	○	○	○	○
My Norwegian Language Arts teacher likes that I use Wikipedia for school work	○	○	○	○
Wikipedia is as reliable as my school books	○	○	○	○
Wikipedia is a good source of information when I am working on tasks in class	○	○	○	○
Wikipedia is a good source of information when I am working on tasks at home	○	○	○	○
Wikipedia is a good source of information when I am working on assignments that will be handed in	○	○	○	○
It is ok to copy information from Wikipedia for minor school tasks	○	○	○	○
I almost always find entries about my search word on Wikipedia	○	○	○	○

How often do you use Wikipedia for these purposes?

	Never or almost never	Several times a month	Several times a week	Several times a day
To find information for small tasks from the textbook	○	○	○	○
To find information for small tasks from the teacher	○	○	○	○
To find information for assignments to be handed in	○	○	○	○
To find information for school projects	○	○	○	○
To find information for oral presentations	○	○	○	○
To prepare for tests	○	○	○	○

How often do you do the following when using Wikipedia in written school tasks?

	Never or almost never	Occasionally	Often	Almost always
I write a search word on Google and get a link to Wikipedia	○	○	○	○
I find content on Wikipedia that I use in my own text	○	○	○	○
I consider whether the information on Wikipedia is accurate	○	○	○	○
I compare the information on Wikipedia with other sources to determine whether it is trusthworthy	○	○	○	○
I include Wikipedia in my reference list if I have used information from Wikipedia	○	○	○	○
I use Wikipedia to find other sources of information I can use	○	○	○	○
I use the content from Wikipedia in my own text, but in my own words	○	○	○	○
I copy and paste content from Wikipedia in my own text	○	○	○	○

Avantages of using Wikipedia

What do you consider to be the advantages of using Wikipedia for school work?

Disadvantages of using Wikipedia

What do you consider to be the disadvantages of using Wikipedia for school work?

Submit   Cancel

For questions contact: marte.blikstad-balas@ils.uio.no

Part II

The Articles

I

II