



UiT The Arctic University of Norway

Faculty of Humanities, Social Sciences, and Education

Multimodality and literacy practices in English

Exploring the role of multimodal texts in English language teaching in Norway

Ingrid K. Jakobsen

A dissertation for the degree of Philosophiae Doctor, June 2022



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Summary

This article-based doctoral dissertation investigates multimodality in English as a school subject in Norway, more specifically in relation to literacy. Calls for more research on multimodality in English language teaching in Norway motivated this study. Furthermore, the recent curriculum inclusion of multimodal texts in the English subject increases its relevance for both practice and research. The overarching research question addressed is as follows: What role does multimodality play in the literacy practices of the English subject in Norway? Taking its theoretical starting point in a social semiotic multimodal perspective on learning, this dissertation includes three qualitative case studies. The data material consists mainly of texts and observations of literacy events, collected in three different contexts.

Article 1 addresses the distinctive features of digital texts, aiming to identify some of the resultant possibilities and requirements English teachers will encounter in the future and at present. The context is that of teacher education, and the discussion is based upon a teaching period focused on digital text production with collaborative writing pads, wiki, and video production. It finds that multimodality is one of the central features of digital texts and exemplifies how visual mode can be a prompt for writing and that multimodal texts can be the basis for assessment.

Article 2 explores literacy practices in a 10th-grade English classroom, through literacy events tied to a multimodal novel. Observing that the teaching is largely multimodal, the article finds that verbal (written and spoken) mode is nevertheless the focus of assessment. The article also shows how the students and the teacher adhere to differing cultures for choice of modes, and that their literacy practices in the assessment situation are different.

In Article 3, English school-leaving exams for lower secondary school, from 2014 to 2018, are analyzed multimodally. Findings show that the literacy requirements of the exams are that students must be able to understand and make use of multimodal texts

provided in the preparation material and the exam tasks set. In their creation of texts, however, the written mode is what the students are required to produce to demonstrate their literacy skills. The literacy practice thus, as in Article 2, moves from multimodal input to verbal output, here in the form of written mode.

The main contribution of this dissertation is increased knowledge about multimodality as an inherent, but little researched phenomenon within the field of English subject didactics and English teaching in Norway. Findings indicate that the English subject has a multimodal literacy practice on the input end of teaching. This practice is, however, largely silent and bound to traditions of scaffolding and notions of motivation. The dissertation implies that the production and recognition of multimodal texts as output as well as input is a natural and necessary step forward for English language teaching, especially considering the recent curriculum.

Samandrag

Denne artikkelbaserte doktoravhandlinga undersøker multimodalitet i engelsk som skolefag i Noreg, med særleg fokus på literacy/tekstkompetanse. Meir forskning på multimodal tekstkompetanse i engelskundervisninga i Noreg har vore etterlyst, og motiverte denne studien. I tillegg har den nye læreplanen, som inkluderer multimodale tekster i engelskfaget, aktualisert denne studiens relevans for både praksisfeltet og forskning. Det overordna forskingsspørsmålet avhandlinga stiller er som følger: Kva rolle spelar multimodalitet i engelskfagets literacy-praksisar i Noreg? Med teoretisk utgangspunkt i eit sosialsemiotisk multimodalt perspektiv på læring, inneheld denne avhandlinga tre kvalitative case-studiar. Datamaterialet består hovudsakeleg av tekstar og observasjonar av teksthendingar, samla inn frå tre ulike kontekstar.

Artikkel 1 tar føre seg dei særeigne eigenskapane til digitale tekster, og tar sikte på å identifisere nokre av dei påfølgande moglegheitene og utfordringane som engelsklærarar vil møte i framtida og no. Konteksten er lærarutdanninga, og diskusjonen er basert på ein undervisningsperiode med fokus på digital tekstproduksjon med samarbeidande skriving på digital plattform, wiki og videoproduksjon. Artikkelen viser at multimodalitet er eit av dei sentrale trekka ved digitale tekstar, og eksemplifiserer korleis visuell modalitet kan vere eit utgangspunkt for skriving og at multimodale tekstar kan vere grunnlag for vurdering.

Artikkel 2 utforskar literacy-praksisar i eit engelsk-klasserom i 10. klasse, gjennom teksthendingar knytt til ein multimodal roman. Observasjonane viser at undervisninga i stor grad er multimodal, men likevel viser det seg at verbal (skriftleg og munnleg) modus er fokus for vurderinga. Artikkelen viser også korleis elevane og læraren held seg til ulike kulturar for val av modalitetar, og at literacy-praksisane deira i vurderingssituasjonen er ulik.

I artikkel 3 gjer eg multimodale analyser av avsluttande eksamen i engelsk for ungdomsskolen, frå 2014 til 2018. Funn viser at leseferdigheitskrava til eksamen er at studentane skal kunne forstå og nytte seg av multimodale tekstar i førebuingmaterialet

og eksamensoppgåvene. Når elevane skal skape tekstar, er det likevel den skriftlege modusen elevane må produsere for å demonstrere sin tekstkompetanse. Literacy-praksisen går altså, som i artikkel 2, frå multimodal input til verbal output, her i form av skriftleg modalitet.

Hovudbidraget frå dette doktorgradsarbeidet er auka kunnskap om multimodalitet som eit ibuande, men lite kjent fenomen innanfor fagdidaktikk og engelskundervisning i Noreg. Funna tyder på at engelskfaget har ein multimodal literacy-praksis på input-sida av undervisninga. Denne praksisen er likevel stort sett taus og bunden til tradisjonar for støttande stillas og motivasjon som drivkraft. Avhandlinga antydar at produksjon og anerkjenning av multimodale tekstar, som output så vel som input, er eit naturleg og nødvendig skritt framover for engelskundervisninga, spesielt med tanke på den nye læreplanen.

Acknowledgments

My interest in multimodality started with literary texts and visual communication, and then expanded as I learned more about multimodal texts and multimodal analysis:

“But once you look at things in terms of multimodality, there is no going back. Everything is multimodal, even a printed text on a page, the choice of typeface, the bold and the italics, the headers.” (Lemke, interviewed in Andersen et al., 2015, p. 125)

Since I began my research project of examining multimodality in the English subject, I have immersed myself in texts, theories, and research. There was no going back to a world where the choice of semiotic resources was not a deliberate design serving communicative functions. Engaging in this doctoral study has been captivating, exhausting, and rewarding, and I have had many helpers along the way.

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Article 1

Brox, H. & Jakobsen, I.K. (2014). Wiki, tekster og arbeidsmåter i morgendagens engelskfag: et eksempel fra lærerutdanninga [Wikis, Texts and Working Methods in Tomorrow's English Education: an example from teacher education]. *Acta Didactica Norge*, 8(2), 1-17. DOI: <https://doi.org/10.5617/adno.1126>

Article 2

Jakobsen, I. K., & Tønnessen, E. S. (2018). A Design-Oriented Analysis of Multimodality in English as a Foreign Language. *Designs for Learning*, 10(1), 40–52. DOI: <http://doi.org/10.16993/dfl.89>

Article 3

Jakobsen, I.K. (2019) Inspired by image: A multimodal analysis of 10th grade English school-leaving written examinations set in Norway (2014-2018). *Acta Didactica Norge*, 13(1), 1-27. DOI: <https://doi.org/10.5617/adno.6248>

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A note on language

This dissertation is written in American English. In official Norwegian translations of documents related to education, the Norwegian Directorate for Education and Training uses British English, and for precision, I have kept the terminology used in these official documents. In addition, the following abbreviations are used:

EFL – English as a foreign language

ELL – English language learners

ELT – English language teaching

ESL – English as a second language

L1 – First language

L2 – Second language(s)

NLG – New London Group

NLS – New Literacy Studies

TESOL – Teaching English as a second or other language

Udir – Utdanningsdirektoratet (The Norwegian Directorate for Education and Training)

1 Introduction

As the title of this dissertation makes clear, the present study examines multimodality in the literacy practices of English as a school subject in Norway. This is an article-based dissertation that addresses an important area about which we still know little (Brown, 2021a, p. 26; Skulstad, 2012, p. 326) and that has become even more relevant with the latest curriculum revisions in Norway (Ministry of Education and Research, 2019).

Neither *multimodality* nor *literacy* are terms used in everyday life, whether by teachers or students. Both concepts will be thoroughly discussed in chapter 3. In short, “the term *multimodal* recognizes that different kinds of resources are combined to produce an overall textual meaning” (Baldry & Thibault, 2006, p. 21). Moreover, “a multimodal perspective approaches representation, communication and interaction as more than language” (Archer & Breuer, 2015, p. 1; c.f. Jewitt, 2014a). In a language subject such as English, it may initially appear strange to deal with “more than language,” and images or gestures, for example, may be perceived as more useful to those who have not mastered a language than to sophisticated users. Turning this around, however, it is equally clear that teachers and students will often intuitively use as broad a repertoire as possible to communicate meaning, especially when teaching and learning a new language. As emphasized by Jewitt (2006, p. xiv), “to take a multimodal approach is not a decision to ‘side-line’ language. When I talk about multimodality I *am* talking about language, language as it exists ‘now’ nestled and embedded within a wider social semiotic” (p. xiv).

I used to walk past, on a daily basis, large English teaching posters displayed on the wall of my department. These posters from the 1950s depicted everyday scenes set in a romanticized 1930s England and ranged from the home to the farm to the railway station and so on. The idea behind the posters was to avoid using mother tongue in teaching and to *show* meaning instead. At the time, the direct method motivated this use of images, with an emphasis on spoken language in both daily use and as a basis for

inductive learning (Horverak, 2019; Simensen, 2019). This is an early example of a multimodal English teaching practice.

Over the last three decades, multimodality—especially the visual qualities of much contemporary communication—has become a central issue in education and literacy research (Jewitt, 2013; Kress & Jewitt, 2003; Rowsell & Walsh, 2011). Spurred by digital technology, texts and literacy practices are changing not only in education but also in society at large. For today’s learners of English in Norway, digital media provide an invaluable input, especially in out-of-school (extramural) contexts, as English is the primary online language (Brevik, 2016, 2019; Medietilsynet, 2020). All communication employs expressions other than language, making the multimodal nature of interaction and learning both more visible and more important. Many researchers have called for a redefinition of literacy and literacy pedagogy (Archer, 2000; Kress, 2000; Unsworth, 2008) to reflect the increase in communication through visual modes:

the skill of producing multimodal texts ... however central its role in contemporary society, is not taught in schools. To put this point harshly, in terms of this essential new communication ability, this new “visual literacy”, institutional education, under the pressure of often reactionary political demands, produces illiterates. (Kress & van Leeuwen, 2006, p. 17)

This provocative statement displays a sense of the urgency with which changes in educational practices to keep up with extramural communicational forms are needed.

Multimodal texts were introduced in Norwegian education in 2006 with the National Curriculum for Knowledge Promotion in Primary and Secondary Education and Training (LK06) (Ministry of Education and Research, 2006a). Foregoing curricula’s extended understanding of the word *text* including forms “such as picture books, cartoons, newspapers, advertising, websites, lyrics, film and theatre” (Ministry of Education and Research, 2010) remained central. With the curriculum reform, however, the ability to read different modes together is emphasized, as is “pupils’ text production and perceptions, critical assessment, and analysis of composite texts” (Norwegian Subject Curriculum, Ministry of Education and Research, 2006a, p. 3). Multimodal texts did not become an explicit part of the English subject until the latest curriculum reform

in 2020 (Ministry of Education and Research, 2019). The articles in this dissertation examine the situation prior to the 2020 curriculum revision. In this integrative document, however, I also take the latest developments into consideration.

When I started this project, studies showed the need to develop Norwegian teachers' competence concerning modes and teaching of multimodal text production (Otnes, 2012, p. 64; Sjøhelle, 2011). Later, research by Burgess (2016) confirmed this point. A recent report commissioned by the Norwegian Directorate for Education and Training to establish a platform of knowledge in the field of English education in Norway mentions multimodal literacy as part of the general communicative competence necessary in English, based on the fact that digital media have made it not only possible but also common to use different modes in order to communicate (Ørevik et al., 2020, p. 48).

However, multimodal texts were already used in school without being recognized as such: "The classroom has long been an arena for the creation of multimodal texts. Students dramatize, write, draw, shape, and record film to make meaning" (Løvland, 2007, p. 90 [my translation]). My hypothesis, when I started the project, was that a lot of English teaching practices are multimodal already, as Løvland indicates. As a subject that deals with linguistics, culture, and literacy, English education uses varied learning materials. Images (Brown & Habegger-Conti, 2017; Eisenmann & Meyer, 2018), picturebooks¹ (Heggernes, 2019), and videos (Hafner, 2019) can all play a central role in giving insights. Songs, flashcards, activity rhymes, and dramas are examples of multimodal texts used to promote language learning and culture, especially among young learners (Lund, 2012a, 2012b; Munden & Myhre, 2020). As students grow older and more proficient, the multimodal texts used include feature films, video clips, graphic novels, digital games, and poetry montages (Birketveit & Rimmereide, 2017; Munden,

¹ I use the closed compound spelling of this term, in accordance with Bader's (1976) benchmark definition.

2021). English as a school subject has actually been multimodal for a long time (Skjelbred et al., 2017, p. 57).

1.1 Defining the field of research: English subject didactics

This dissertation aims to contribute to the field of English subject didactics. *Didactics* is a word used in a European and Nordic context to denote “the art of teaching” (Comenius, 1907, p. 5).² Whereas the term *pedagogy* encompasses overall philosophical discussions such as “what it means to be a human being, what is important knowledge and how people learn” (Stray & Wittek, 2014, p. 24), didactics can be regarded as the part of pedagogy that is more closely tied to formal education and teaching (Kansanen et al., 2017, p. 34). Sjøberg (2001, p. 2) portrays didactics as a bridge between subjects and pedagogy. Didactics can be “general” or narrowed to subject-specific didactics that are mainly connected to the teaching of individual disciplines, such as English. Some also distinguish “area didactics” as adapted to and used at specific institutions and levels of education. These are complementary perspectives on didactics (Qvortrup, 2018, p. 29).

Subject didactics deals with the overall purpose and aim—the *whys*—of a subject. Moreover, it takes into account the methods, materials, and techniques—the *hows*—of a subject (Fibæk Laursen & Kristensen, 2017; Simensen, 2007; Sjøberg, 2001). Subject didactics also asks questions such as *what*, *who*, *where*, and *when* in education (Ongstad, 2004, p. 21; Qvortrup, 2018, p. 29). Elbow (1990, p. v) argues that in educational research the question “What is English?” can never completely be answered. In research on English language teaching, one of the driving forces is thus to continuously pose questions.

In many languages, including French, German, and Norwegian, the term didactics is neutral (Heimark, 2007). In English, however, it often has pejorative connotations, as Cope and Kalantzis (2015, p. 7) explain: “‘Didactic’ in English carries semantic

² Derived from the Greek *didaktike (techne)*, which in turn is derived from *didáskein*; the classic definition comes from Comenius (1907).

loadings that it does not carry in other languages, where ‘didactics’ is a neutral term equivalent to ‘curriculum’, ‘instruction’, and ‘pedagogy’ in English.³ Other comparable terms in English, in addition to those mentioned by Cope and Kalantzis, are “educational theory, curriculum studies, science (and justification) of teaching” (Bø & Helle, 2005, p. 44). Norwegian educational research and teacher education also use the compound term *fagdidaktikk*, which can be translated to “subject didactics” (as I do above), “subject methodology” (Bø & Helle, 2005, p. 65), “disciplinary didactics” (Ongstad, 2012), or “subject pedagogy,” as in courses for teachers at UK universities and Nord University in Norway. Brevik and Rindal (2019), scholars of English in education, claim that “the negative associations to the term ‘didactics’ seem to have receded somewhat” (p. 419) and promote the term’s relevance in teacher education to demarcate “English didactics as a separate research field in Norway” (p. 418).

English subject didactics is the central field to which this dissertation aims to contribute. It may also have relevance for other language subjects and to general didactics. Subject didactics in teacher education stands at the complex intersection of teaching, research, educational politics, and curriculum development for both primary and higher education, according to Ongstad (2014, p. 197). This thesis researches the multimodal literacy practices of English in Norway; that is, it looks *at* in order to contribute *to* the field of education, meaning both at the level of teachers and students in schools, as well as pre-service teacher, teacher educator, and policymaker levels.

1.2 Motivation

Researchers tend to enter the field of didactics either from pedagogy, which leads them to an interest in the didactics of a specific subject, or from a specific subject that triggers an interest in pedagogy generally and in subject didactics. The latter profile is more

³ They continue as follows: “It means to be told things rather than to find them out for yourself. It positions the teacher as an authority figure and the student as a beneficiary of the knowledge they convey. It involves the transmission of knowledge from the knowing expert to the as-yet-unknowing novice. And of course, in a certain perspective education is, inevitably and always, all of these things. However, the critics of didactic pedagogy seize on its peculiar emphases that position students as passive recipients of knowledge and compliant objects of authority” (Cope & Kalantzis, 2015, p. XX).

common (Sjøberg, 2001), and that is my situation. My interest in subject didactics sprang from the challenges I faced when I started teaching the subject after having studied English language and literature on a purely academic level. One challenge was how images in English language literature and texts affected the students' reception and response. This sparked my interest in visual modes, which led me to the interplay between visual and written modes and, later, the entire range of multimodal interplay. English is a language and cultural subject in which a wide range of texts are central. I therefore look at multimodality in relation to literacy. My background and horizons of understanding (Gallagher, 1992) can impact my research and thus need to be communicated (Merriam, 2009). As a reader, I had to learn, or re-learn, to slow down and pay attention to modes beyond words, such as the pictures in graphic novels and picturebooks. I grew up with an abundance of illustrated texts and picturebooks, but as soon as I could read on my own, I mainly read novels without pictures. I appreciated how that kind of literature let my imagination create mental images, and I still think that ability has value. At the same time, I think multimodal communication is vital in English and other school subjects.

1.3 Research purpose and overarching aim

The purpose of the present study is to gain an in-depth understanding of multimodality in English teaching and learning in Norway and ultimately to contribute to didactic development. I have chosen to delimit this study of multimodality to literacy practices; that is, events that revolve around texts (see chapter 3). Moreover, I have chosen to examine the contexts of teacher education and 10th grade, the end of Norwegian compulsory school. These choices were chiefly motivated by my professional interests as a teacher educator in English literature, literacy, and didactics for teacher education aimed at the first through 10th grades. Furthermore, the 10th grade is the culmination of compulsory English and is therefore an excellent position from which to investigate the subject.

I began this project by taking an exploratory look into the possibilities of digital texts in teacher education, together with a colleague whose interest in wikis and digital texts

complemented mine in multimodality. We both wanted to explore the difference that using digital technology to create texts can make for learning (Jewitt, 2006, p. 1). With the work on the first article in this thesis, my motivation was strengthened, and I knew that multimodality was an aspect I wished to pursue further.

As my research aim is to *understand*, it follows that this is a qualitative study (Krumsvik, 2019, p. 30). The main research question in this dissertation is as follows: *What role does multimodality play in the literacy practices of the English subject?* Using three cases from different contexts, this dissertation employs a variety of perspectives and sites of exploration relevant to understanding multimodality in the literacy practices of the English subject (see Figure 1):



Figure 1: Overview of the case studies in the dissertation.

- *Multimodality as an aspect of the literacies that English teachers will need for a digital future* is the topic of Article 1, which discusses the challenges and

possibilities that digital technology can bring about for literacy in the English subject. It uses the wiki as an example of approaches that can lift students from primarily being recipients to becoming active producers of a large range of texts that bridge “old” and new literacies. Article 1’s publication details are as follows: Brox, H. & Jakobsen, I. K. (2014). Wiki, tekster og arbeidsmåter i morgendagens engelskfag: et eksempel fra lærerutdanninga [Wikis, texts and working methods in tomorrow’s English education: An example from teacher education]. *Acta Didactica Norge*, 8(2), 1–17. <https://doi.org/10.5617/adno.1126>

- *Multimodality in the literacy practices of 10th grade English classrooms in Norway* is the focus of Article 2, which finds an important difference in the role of multimodality in the teacher’s design for learning and in the students’ designs in learning. This difference offers both the possibility of tension and the potential for didactic development. Article 2’s publication details are as follows: Jakobsen, I. K., & Tønnessen, E. S. (2018). A design-oriented analysis of multimodality in English as a foreign language. *Designs for Learning*, 10(1), 40–52. <http://doi.org/10.16993/dfl.89>
- *Multimodal aspects of the final written examinations set for the 10th grade in Norway* is the subject of Article 3, which finds that writing is given the main communicative role, although modes such as layout and image are also employed in well-orchestrated ensembles. Hence, the exams that students take at the end of their compulsory education signal that being able to read multimodal texts is considered a relevant literacy skill in the English school subject. The tasks, however, do not show that multimodal literacy skills are important for output. Article 3’s publication details are as follows: Jakobsen, I. K. (2019). Inspired by image: A multimodal analysis of 10th grade English school-leaving written examinations set in Norway (2014–2018). *Acta Didactica Norge*, 13(1), 1–27. <https://doi.org/10.5617/adno.6248>

1.4 The structure of the dissertation

Part One of this dissertation is what Norwegians call *kappe*⁴ and consists of six chapters that introduce, position, and bring together the findings of my study.

Chapter 2 outlines the Norwegian context and situates multimodality in Norwegian curricula. Chapter 3 explains the theoretical framework for the dissertation, while chapter 4 reviews the relevant research literature both internationally and in Norway before indicating how this dissertation contributes to ongoing research discussions. In chapter 5, the methodological approach, research design, and research credibility are all discussed. Chapter 6 consists of a summary of the three research articles. I then discuss and synthesize the main findings, including the overall contributions in relation to the main research question. The chapter ends with conclusions, limitations, implications for multimodal literacy practices in the English school subject, and recommendations for future research.

The three articles are included at the end of this dissertation, in Part Two.

⁴ The word translates to cloak, cape, hood, robe, or mantle. Terms in English like synopsis, extended summary, or extended abstract are often used. Still, they do not fully express the requirement of Norwegian universities to adopt a holistic perspective on the research project and connect the articles.

2 Background and context

2.1 The Norwegian educational context

In this chapter, I provide an overview of the context of this study. I begin with the Norwegian educational system at both the basic and higher education levels and English as a subject therein. I then outline the position of multimodality in the Norwegian educational context.

2.1.1 The school system in Norway

Norway has 10 years of compulsory school, divided into primary school (grades 1–7) and lower secondary school (grades 8–10). Upper secondary school⁵ (grades 11–13) is not compulsory, but all students have a legal right to attend, and education for all 13 years is free. Norway uses national curricula at all levels, with locally adapted teaching plans and centrally given exams; see section 2.2 for more information on the curriculum. Lower secondary school's grade 10 is the focus of Articles 2 and 3; that year was chosen because it marks the end of compulsory schooling, and grades obtained in lower secondary school determine admission to upper secondary school. All students sit for a centrally given written exam in one of the three large subjects—Mathematics, Norwegian, or English—at the end of 10th grade.

2.1.2 English in the Norwegian context

As a language, English is ubiquitous in Norwegian society (as described in Article 2) but defining the position of the language using common linguistic labels is tricky. English language education in general is a large field that has a number of specialized branches according to the purpose and context in which English is taught and learned. Johnson (2008, p. 12) points out how this has resulted in a “plague” of acronyms; more than 50 are used internationally, such as EAL (English as an additional language),

⁵ This dissertation uses standard American English. However, I use the British terms for school types, such as lower and upper secondary school, as these are the ones used in official document translations from Norway's Ministry of Education and Research.

TESOL (teaching English to speakers of other languages), and TEFL (teaching English as a foreign language). In research literature in Norway, the two terms English as a foreign language (EFL) and English as a second language (ESL) are the most common choices, and they are used more or less interchangeably (Røkenes, 2016, p. 3) to discuss English language teaching (ELT). The term EFL is used in Articles 2 and 3, but neither term accurately describes the position of English in Norway.

English as a foreign language was introduced gradually into Norwegian education, beginning in the 1860s in the southern parts of the country to cater to shipping and trade. Later, English and German were implemented as non-compulsory foreign language subjects in 1889 (Skjelbred et al., 2017, p. 199). English became an elective subject in 1936 and steadily became more widespread until it became compulsory in the 1960s (Gundem, 1989; Ytreberg, 1993, pp. 9-14). Today, Spanish, Russian, German, and French (which are electives introduced in eighth grade) are called “foreign languages” in the national curriculum. Heimark (2007, p. 1) calls them “second foreign languages” to distinguish their position from the first foreign language, English, which is a compulsory subject from first grade and has its own curriculum (Ministry of Education and Research, 2006b, 2013b, 2019). The notion of EFL thus does not satisfactorily characterize the school subject in Norway.

English tends to be regarded more as a second than a foreign language in many spheres of Norwegian life, due to exposure and the resultant high level of mastery. However, the abbreviation ESL is usually employed in countries in which English is an official language (Dahl, 2014, pp. 28-29). “The term ‘second language’ is used to designate the language of those who speak one language at home (perhaps a mother tongue) and an additional language (or more) outside the home” (Gunderson et al., 2011, p. 474). English is not a governmental language in Norway, as it is in typical ESL countries such as India and Singapore (Trudgill & Hannah, 2008, pp. 4-5). Rindal and Piercy point out that Norwegians “are neither speakers of new Englishes in postcolonial countries nor immigrants to a native English-speaking country” and that “English is not used as a lingua franca among Norwegians” (2013, p. 212). In the school context, the fact that not

all students learn English as a second but rather as a third or fourth language, further complicates using the ESL term (Surkalovic, 2014). Perhaps following Edwards's (2014) suggestion to view EFL and ESL on a continuum would help by enabling a view of English in Norway as somewhere between foreign and second: "hybrid, fluid, in transition" (Rindal, 2019). This strategy does not, however, give us a specific term to employ, unless we use the neutral approach of the curriculum, which simply calls it "English."

Another neutral term is *L2*, which is used at times in this thesis. The label *L2* to denote a second language is effective at describing English in Norway when it is understood as also possibly representing a third or even fourth language (Gunderson et al., 2011). Brevik and Rindal (2019) use the expression "L2 English." I have adopted the same approach when it is necessary to distinguish between *L2* and *L1* subjects (whether Norwegian or English) in an educational context.

2.1.3 Teacher qualification in Norway

Teacher education in Norway is defined by national guidelines and regulations, within which university colleges and universities shape their training and syllabi. It is worth noting that until recently, the same two basic textbooks about teaching English were used in all five institutions selected for an investigation of the 2010 teacher education reform (Moi et al., 2014, pp. 5, 20). This may indicate that many present-day teachers of English in grades 1–10 in Norway share the same understanding of didactics in the subject. Since the publication of that report by Moi and colleagues, however, several new textbooks on ELT have appeared on the Norwegian market. This reflects not only an increase in research on English didactics but also changes in teacher education.

Norwegian teacher education has undergone several reforms in recent decades (Munthe et al., 2011). One such change came in 2010, when teacher education was split into two differentiated programs that partly overlap: one for grades 1–7 (primary school) and one for grades 5–10 (primary and lower secondary school). Another reform, which took effect in August 2017, entailed going from a four-year program to a five-year master's

program⁶ for both tracks. This is part of an ongoing government efforts to strengthen Norwegian teacher education for both pre- and in-service teachers (Lærerløftet, Ministry of Education and Research, 2014). Especially significant for English was a requirement instituted in 2014 that all teachers in primary school must have a minimum of 30 credit points (half a year of full-time study, also known as 30 ECTS⁷) to teach the subject; previously, they only needed the general qualification as a teacher.⁸ For lower secondary school teachers (grades 8–10) the corresponding requirement became 60 points (Ministry of Education and Research, 2014). This is important, because English is not a compulsory subject in teacher education; it is an elective, and though the situation has improved in recent years, there are still many teachers without formal competence in English.⁹ The same credit requirements apply to mathematics and Norwegian,¹⁰ which shows the significance of English as one of the three major subjects in Norway’s educational system.

2.2 Multimodality in the Norwegian curricular context

2.2.1 The Knowledge Promotion Reform

When the national curriculum known as LK06 came into force in 2006, it introduced a new curricular paradigm in several ways. First, it represented a shift from a detailed description of specific contents, such as which texts to read, to more general competence aims that left the selection of teaching material and methods largely up to teachers, schools, and local plans. Secondly, LK06 introduced the concept of *basic skills*. These five skills, implemented in subjects across all grades (1–13) are the ability to read, to write, to express oneself orally, to use numeracy, and to use digital tools (Ministry of

⁶ UiT The Arctic University of Tromsø, my home institution, ran a pilot of the five-year program beginning in August 2010.

⁷ The European Credit Transfer and Accumulation System (ECTS) “is a tool of the European Higher Education Area for making studies and courses more transparent. It helps students to move between countries and to have their academic qualifications and study periods abroad recognised” European Commission (n.a.).

⁸ In teacher education these requirements are reflected in how the minimum for those who choose English is 30 credits in the 1–7 program and 60 credits in the 5–10 program.

⁹ According to Statistics Norway’s *Report on Teacher Competence*, 45% of all teachers who teach English did not have any credit points in English in 2018–2019, and 50% of those who did have English credit points had too few to meet the requirements (Statistics Norway, 2019a).

¹⁰ The requirement also applies to teachers of Norwegian sign language and teachers of the Sami language.

Education and Research, 2006a); they have since been adjusted and renamed (e.g., Udir, 2012). Another novelty in LK06 that is highly relevant to this dissertation was the introduction of multimodal texts, to which I now turn.

2.2.2 *Sammensatte tekster*

Norway was the first Scandinavian country to introduce the concept of *multimodal texts* into the school curriculum (Christensen, 2016). The Norwegian term *sammensatte tekster* replaced what was, in the first drafts, called *multimodale tekster* (Liestøl, 2006, p. 305; Schwebs, 2009, p. 95). Despite the apparent transparency of the term *multimodale tekster*, the Norwegian coinage *sammensatte tekster* was believed to be more familiar and accessible to teachers (Gunnedal, 2007), and the decision to use the latter was made at the ministerial level (Liestøl, 2006, p. 301). *Sammensatte tekster* was in turn translated to *composite texts*¹¹ (see the block quotation in section 2.2.3) in official curriculum translations into English (Ministry of Education and Research, 2010), and in a later translation, to *multimedia texts* (Ministry of Education and Research, 2019). I return briefly to translations in section 2.2.5.

Critical voices claim that the term *sammensatte tekster* is imprecise (Roe, 2011, p. 52), artificial (Løvland, 2007, p. 21), vague (Otnes, 2012, p. 61), and ambiguous (Burgess, 2016, p. 3). On the other hand, Tønnesson (2006, p. 14) claims the term *multimodale tekster* is easily mistaken to mean “multimedia texts” and could result in a focus on the formal rather than communicative aspects. Most Norwegian scholars use the two expressions interchangeably, though *multimodal texts/tekst* is preferred in academia and publications in Scandinavian languages (e.g. Burgess, 2016; Christensen, 2016; Leijon & Lindstrand, 2012; Løvland, 2007, 2011; Maagerø & Tønnessen, 2014; Tønnessen, 2017). Another example of the difference in the use of terms between higher and basic education is found in the national guidelines for teacher education, in which *multimodale tekster* (and English “multimodal texts”) appears for L1 Norwegian

¹¹ The expression *composite* was also used in early works by van Leeuwen and Kress, such as Kress and van Leeuwen (2006b).

(Universities Norway, 2018, pp. 59, 61). As I am writing this in English, I find it natural to use the terms *multimodal* and *multimodal texts*, but knowledge of the Norwegian term and its use is essential background information for the reader.

2.2.3 Multimodal texts and the extended notion of text in L1 Norwegian

L1 Norwegian was and still is the subject in which multimodal texts are most prevalent in the national curriculum. In order to highlight it as a new and central concept, *sammensatte tekster* was made one of the main four curricular areas for Norwegian in LK06. The official English translation of the Norwegian subject curriculum describes this main area as follows:

The main subject area composite texts focuses on an extended text concept where texts may be composed of writing, sound and pictures in a composite expression. This means working with texts such as picture books, cartoons, newspapers, advertising, websites, lyrics, film and theatre. This main subject area includes pupils' text production and perceptions, critical assessment and analysis of composite texts. Being able to read in composite texts deals with finding meaning in the entirety of the different forms of expression found in the text [*sic*]. (Norwegian Subject Curriculum, Ministry of Education and Research (2006a))

Here it is clear that the preceding curricula's extended understanding of the word *text* is still central in LK06. Whether or not the new term *multimodal text* and the older notion of *extended text* are the same is unclear in the English translation of the curriculum (Karlsson, 2007). In the original Norwegian wording, however, the two do appear synonymous: "The main subject area ... refers to an extended notion of text" (p. 42, my translation).¹² Some scholars have indicated that the expression *multimodal texts* actually replaces and encompasses the extended notion of text (Rogne, 2012). While I can agree with this view, I do not think it is clear in the above quotation that this is the case in the curriculum. With the above description, the ability to read different modes together is emphasized. In other words, multimodal interplay—rather than the type of text—is emphasized, and it is interplay that dominates the description of the extended

¹² «Hovedområdet sammensatte tekster viser til et utvidet tekstbegrep der tekst kan være satt sammen av skrift, lyd og bilder i et samlet uttrykk.»

or broad notion of text. Overall, I find that there seems to be a pragmatic divide in the curriculum between the broad concept of text as a tool for talking about different types of texts and multimodal texts as a concept for focusing on the interplay between modes in texts.

Looking further at *sammensatte tekster*, the LK06 curriculum explicitly mentions the *production* of multimodal texts for L1 Norwegian. Rogne (2008) points out that whereas previous curricula had included the reception of multimodal texts (Rogne here equates the extended notion of text with multimodal texts), LK06 was the first explicitly to include students' text production as part of learning about multimodal texts. Notably, Rogne draws attention to the fact that there is a difference between the general description of multimodal texts as a main area in the Norwegian curriculum and the related competence aims. He finds that multimodal texts are regarded as extras or as “spicing up” the subject and concludes that weak claims about text production do not accord with the curriculum's overall statements (Rogne, 2008, p. 11). This disparity between reception and production of multimodal texts is an issue I return to in section 2.2.5. as well as in the discussion in chapter 6.

2.2.4 Multimodality in the English curriculum

Returning to the English subject, an extended notion of text has been a part of the subject for decades. When the 1997 Norwegian curriculum introduced English in the first year of school—and with children now starting school at age six instead of seven—it emphasized the importance of varied forms of input: “In teaching, the students will experience English through several media, use pictures and drawings that can help them empathize with the texts they encounter, [and] hear excerpts from children's books” (quoted in Skjelbred et al., 2017, p. 389 [my translation]).¹³

An extended notion of text is central in the LK06 English subject curriculum and includes forms “such as picture books, cartoons, newspapers, advertising, websites,

¹³ «I opplæringen skal elevene oppleve engelsk gjennom flere medier, bruke bilder og tegninger som kan hjelpe dem til å leve seg inn i tekstene de møter, høre utdrag av barne bøker.»

lyrics, film and theatre” (Ministry of Education and Research, 2006b). However, the word *text* has been partly replaced by the word *communication*, for example in the expression “oral communication” instead of “oral texts.” In addition, whereas the expression *sammensatte tekster* appears to replace an extended notion of texts in L1 Norwegian, it has been retained in the English subject curriculum, where “the concept of text is used in the broadest sense of the word” (Ministry of Education and Research, 2013a, p. 2), even though the curriculum specifies oral and written texts in other parts of the document. What the word “text” means has thus evolved in the Norwegian subject but remained fairly constant in the English subject as it appears in the 2013 edition of the LK06 curriculum.

So far, I have deliberated on multimodal texts in the subject curriculum for L1 Norwegian. Only minor parts of the L2 English subject curriculum explicitly included multimodal texts in the 2006, 2010, and 2013 revisions of the curriculum. One example is the first year of upper secondary school English curricula, which mention multimodal texts, an addition that was made in 2010. For the lower secondary school level that I investigate in Articles 2 and 3, however, multimodal texts are included only for the elective subject called In-Depth Studies in English. This elective is quite different from the compulsory English program curricula and has been widely criticized (Bakken & Dæhlen, 2011; Haugen, 2017). However, I think the way literacy and the role of texts in society are portrayed in the In-Depth English curriculum is very useful: “By exploring and producing both traditional and multimodal texts students will gain more knowledge and understanding of how texts function in society and how they affect individuals” (Ministry of Education and Research, 2006a, p. 2 [my transl.]).¹⁴ This is a statement that I support and expresses my own stance on this matter. It includes the aspects of both production and reception, and it is well aligned with the descriptions in the Norwegian subject curriculum. However, there is a weaker operationalization of the description in the actual competence aim, in which students shall be able to “present a program

¹⁴ «Ved å utforske og produsere både tradisjonelle og sammensatte tekster vil elevene få økt kunnskap og større forståelse for hvordan tekster fungerer i samfunnet og hvordan de påvirker enkeltindivider» (p. 2).

composed of different forms of expression based on their own texts and those of others” (Ministry of Education and Research, 2006a, p. 4 [my transl.]).¹⁵ In the Norwegian original, the word *sammensatt* is used where I have used the word “composed,” so the competence aim does not use the expression *sammensatte tekster*. This weakening of the operationalization is the same phenomenon that Rogne (2008) points out in the Norwegian subject curriculum.

2.2.5 Digital and multimodal texts in curriculum revisions

I end this chapter with a consideration of digital and multimodal texts as they appear in Norwegian educational practices and curricula. Several revisions of the LK06 curriculum have taken place, with minor changes in 2010 and 2013 and a major change in 2020. One aim of the 2013 revision was to make basic skills more visible and uniformly expressed across grades and subjects. The revision was initiated by a new framework for basic skills, in which “the ability to express oneself orally” was changed to “oral skills” and “the ability to use digital tools” was changed to “digital skills” (Udir, 2012). Both skills are important when working with multimodality, especially digital skills, as multimodal texts and digital skills are often linked in actual competence aims. Moreover, the progression from seeing the digital as a tool to a focus on digital skills may include awareness of how digital technology can shape texts.

The digitization of Norwegian education is progressing rapidly. Roughly every third year, the *Monitor*, a report commissioned by the Norwegian Directorate for Education and Training, surveys digital development in schools. The 2019 *Monitor* shows that digital devices are used on a regular basis in a large number of Norwegian schools and that such usage increases as students grow older (Fjørtoft et al., 2019). Digital units (primarily tablets or laptops) are now available for most students in Norwegian compulsory school. Eight of 10 students in grades 1–4, nine of 10 students in grades 5–7, and practically all (98%) lower secondary students have one-to-one access to a digital device in school, according to statistics from the Udir (2021). Consequently, literacy

¹⁵ «Framføre et program sammensatt av ulike uttrykksformer basert på egne eller andres tekster».

practices are changing: “Semiotic practices are interwoven with communicative practices, and they will at any time be informed by the media available” according to Tønnessen (2015, p. 38 [my transl.]). Looking specifically at English, 20.9% of students in fourth grade use computers “often or always” in English classes, with 38.9% using them “sometimes” (Fjørtoft et al., 2019, p. 30). In ninth grade, 57.5% use computers often or always in English classes, with 23.1% using them sometimes (p. 32). Across subjects, the three most common classroom activities that involve computers are creating texts, finding information online, and making presentations (p. 33). All in all, this indicates that digital media constitute an important part of English teaching; consequently, the “semiotic landscape” (Kress & van Leeuwen, 2021, pp. 19-20) is changing.

Another significant alteration was that the main area *sammensatte tekster* was taken out of the L1 Norwegian subject curriculum in 2013. Thus, the attention to multimodal texts that had been indicated by its counting as one of four main areas in the subject of Norwegian was reduced. All the competence aims were retained, however, and distributed within the remaining three areas. One rationale for this modification was that the need to highlight multimodal texts as a separate entity was not as strong, based on the perception of multimodal texts as amalgamated with the extended notion of text (Iversen & Otnes, 2021).

Norway implemented the new and current curriculum for primary and secondary education in 2020. My articles look at the situation prior to the latest curriculum, but I find it interesting to investigate the new curricular developments regarding multimodality. Much of the previous curriculum has been preserved, such as the principle of competence aims after grades two, four, seven, and 10 and the notion of basic skills. Even the name has been kept, but changing the year or using the abbreviation LK20 helps distinguish it from previous versions. In other respects, the reform is substantial. Three interdisciplinary topics now weave through all subject curricula with the object of creating unity. In addition, core elements have been defined for each subject, and each subject has a specific section about assessment. Moreover, a

clear intention of this renewal has been to “slim down” the number of competence aims and thus facilitate in-depth learning (Ministry of Education and Research, 2018; NOU, 2015).

LK20 has brought *sammensatte tekster* into the compulsory English curriculum for the first time. While this addition came in spite of tightened competence aims, it may not be a radical departure from that effort, because *sammensatte tekster* has not been given much room. In the description of reading as a basic skill in the English curriculum, the term *sammensatte tekster* is included. It next appears in a competence aim that is reiterated with gradual advancement for grades seven, 10, and 11. The aim for seventh grade reads as follows: “write cohesive texts, including multimedia texts, that retell, tell, inquire about and express opinions and interests adapted to the receiver” (Ministry of Education and Research, 2019, p. 8).¹⁶ The competence aim after grade 10 is that the student can “write formal and informal texts, including multimedia texts with structure and coherence that describe, narrate and reflect, and are adapted to the purpose, receiver and situation” (Ministry of Education and Research, 2019, p. 9).¹⁷ Before I consider the competence aims, the translation merits comment.

I have used the Norwegian name and provided the Norwegian original in footnotes here for a reason. In the official translations from Norwegian to English, the term *sammensatte tekster* has been translated into *multimedia texts*. This unfortunate mix-up may well be due to a simple lack of familiarity on the part of the translator with the specific terminology used in the field. Whatever the reason, it shows that *sammensatte tekster* is not yet fully established in the collective understanding of Norwegian curricula, and Tønnesson’s warning that multimodal and multimedia could be confused has been confirmed in practice (2006). Next, it may imply that the term *sammensatte tekster* is closely associated with digital communication and multimedia in current

¹⁶ «skrive sammenhengende tekster, inkludert sammensatte, som gjenforteller, forteller, spør og uttrykker meninger og interesser, tilpasset mottaker».

¹⁷ «skrive formelle og uformelle tekster, inkludert sammensatte, med struktur og sammenheng som beskriver, forteller og reflekterer tilpasset formål, mottaker og situasjon».

discourses and practices. As a result, analog multimodal texts may be side-lined or even overlooked entirely, depending on the language in which teachers read the curriculum.¹⁸

Translation issues aside, it is thought-provoking that yet again (as with L1 Norwegian) one can find an incongruency between the introductory parts of the curriculum and the competence aims. *Sammensatte tekster* is mentioned under “Reading” in the description of basic skills in English, whereas the competence aims that include multimodal texts are about writing. This inconsistency does not make it easy to interpret the curriculum. Moreover, the insertion of *multimodal texts* between commas in a long sentence gives it the impression of an afterthought, though perhaps it merely reflects the challenges of the format. It will be of interest for future research into the development of English didactics to pursue this issue and observe how textbook creators, teachers, national tests, and exams reflect these aspects of the curriculum.

¹⁸ In the new core elements for the L1 Norwegian subject curriculum, the term *uttrykksformer* (“forms of expression”) is used for multimodality, and it has been suggested that this is another (imprecise) attempt to replace an academic term with an everyday expression (Rogne et al., 2018).

3 Theoretical and conceptual framework

This chapter outlines the dissertation's conceptual and theoretical framework. Based on my research questions, I begin by looking briefly at the concept of text. I then discuss literacy in depth and present multimodality and social semiotic theory before moving on to issues of design and learning. I sum up by discussing the connections between multimodal literacy and learning designs.

3.1 Text

In everyday use, the word *text* refers to written or typed words, such as the text one finds in a novel, where printed letters form words, sentences, and chapters. Weaving together signs into a *texture*—the Latin origin of the word—opens up a semiotic understanding of how different modes are combined to create a whole. From the academic perspective, a text can be defined as consisting of linguistic signs, usually in combination with signs from other semiotic systems, and a text has meaning and is made manifest through a medium such as writing or speech (Svennevig, 2009, p. 169). The fact that a text can also be speech, music, film, image, or diagram means that it can be necessary to specify what sort of text we are dealing with rather than falling back on the everyday equation between writing and the word “text.” Below, I use concepts such as *written/printed* text, *writing*, or *print* (as synonymous with typed) to refer to verbal texts using letters on paper or screen.

What characterizes a text is that it is involved in communication between a sender and a recipient, and that it has a purpose. Texts must be interpreted, and the context in which they appear is important, notes Skjelbred (2019, p. 13). Her observations are along the lines of Halliday's (1993) view of language and texts as functional. At the center of the functional view of language is that there is a system with a meaning potential and the realization of that system in the shape of texts: “semiotic resources as systems, semiotic choices as text” (O'Halloran, interviewed in Maagerø et al., 2021, p. 90). Behind all texts, choices are made about which resources to use and how, depending on the context,

and thus a broad notion of text can include the practice in which the text appears (Karlsson, 2007).

3.2 Literacy

Literacy is a phenomenon and a research field that is not easily defined (Barton, 2007; Janks, 2010; Rowsell & Pahl, 2015). The ability to read and write, which is the everyday sense of the term, is a useful starting point (Macmillan Dictionary, 2020). When a young child learns to read, they must learn to *decode* letters; in Norwegian schools, the expression used is to “crack the reading code.” Learning to read also involves *comprehension*; that is, understanding what is read (Gee, 2015, p. 21). According to my social constructivist view of knowledge as created in the social practices that exist between people and are in constant change, it is natural to work within a framework that looks upon literacy as social. In addition to being an individual technical skill of decoding letters, literacy is thus also a social and communicative skill:

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 interactions between people. (Barton & Hamilton, 1998, p. 3)

As the quotation indicates, a social view of literacy is an expansion of the way literacy was initially studied as a cognitive, individual skill in decoding and composing alphabetically. Recognized as an ability that must be adapted to the situation, the sort of text encountered, and the purpose of reading and writing (Gunderson et al., 2011, p. 483), literacy skills are never fully trained but are always adjusted to new text forms and contexts. Literacy includes dimensions such as culture and aesthetics and the ability to grasp the emotions and expressions in communication. Finally, there is also the important critical dimension of literacy, of being able to ask questions about power, reliability, and bias (Janks, 2010). Assessing the reliability and intentions of claims and depictions has hardly grown less important in these days of global online communication (Gee, 2015; Smidt, 2011).

Literacy does not have an equivalent term in European languages like French or German (Janks, 2010, pp. 1-19). Norwegian scholars increasingly use the English term, not only because the direct Norwegian translation *litasitet* is rather awkward but also as a reflection of and sign of respect for the multifaceted meaning and ongoing debate behind the term (Kulbrandstad, 2018; Løvland, 2007). One of the well-established alternative terms in Norwegian is *tekstkompetanse* (e.g. Løvland, 2006; Maagerø & Tønnessen, 2014), which is used in Article 1 as a synonym for *literacy*.

In the 1970s and 1980s, literacy research began to include both the cognitive view of seeing literacy as deciphering letters and the concept of regarding literacy as a social practice (Barton, 2007; Gee, 1989, 2015; Heath, 1983; Street, 2006). This position later became known as New Literacy Studies (NLS), even though there are many nuances and differences between researchers within this field. NLS included going from the singular to the plural form of the word: “the plurality of literacy in terms of different socially and culturally defined practices connected to print (different ‘literacies’)” (Gee, 2015, p. 55). Lankshear and Knobel (2011, p. 27) describe this change as radical and paradigmatic. Nevertheless, both the long-standing cognitive and the newer social perspectives on literacy are useful for teachers (Davidson, 2010). Research on cognitive aspects of literacy includes reading strategies, metacognition, and self-regulation (Blikstad-Balas, 2016, p. 17). One perspective on literacy does not have to exclude the other (Skaftun et al., 2015), and despite the many definitions of the term, a number of scholars agree that “literacy is both a set of cognitive skills and a set of practices” (Janks, 2010, p. xiii). This thesis combines a social and dynamic view of literacy with a social semiotic multimodal research lens (Bezemer & Kress, 2016).

3.2.1 Literacy events and literacy practices

Literacy events, literacy practices, and text are key concepts in this study. I briefly discussed text in section 3.1. In this section, I look at literacy events and literacy practices, which are fundamental in NLS for researching literacy as a social practice.

One of the first to put the notion of literacy event into use was Heath (1983), who described literacy events as communicative situations “when talk revolves around a piece of writing” (p. 386). In other words, a written piece of text for Heath is central to a literacy event. In English education the starting point for most learning activities is some kind of text; while that often means printed words and images in a textbook, it can take the form of plays, songs, current news, or video clips. In education, engagement in a literacy event has learning as its explicit purpose (Barton, 2007, p. 35), and for L2 English in Norway, the goal can be to study both the language and the content of the text in the literacy event.

Barton and Hamilton (2000) build on researchers such as Heath and Street when they note that literacy events are indicative of a practice that is more profound: “practices are not observable units of behavior since they also involve values, attitudes, feeling and social relationships” (p. 7). In order to understand literacy practices, they suggest looking at texts and observable events:

These three components, practices, events, and texts, provide the first proposition of a social theory of literacy, that: *literacy is best understood as a set of social practices; these are observable in events which are mediated by written texts.* (Barton & Hamilton, 2000, p. 9, emphasis in the original text)

These three concepts—practices, events, and texts—are central in this thesis as units of analysis:

Together events and practices are the two basic units of analysis of the social activity of literacy. Literacy events are the particular activities where literacy has a role; they may be regular repeated activities. Literacy practices are the general cultural ways of utilizing literacy which people draw upon in a literacy event. (Barton, 2007, p. 37)

By studying specific activities in which literacy is involved, it is possible to see the outline of the underlying literacy practice. I now briefly describe how these concepts feature in my research.

Methodologically, the notion of literacy events is actively used in Article 2 to frame units of classroom observation that subsequently form a pattern indicative of the literacy practice in that classroom. The article analyzes the texts around which the literacy events in the classroom revolve, the events, and subsequently the local literacy practices. In schools, many learning activities and ways of working with texts and literacy are established parts of the school culture and—though they will vary according to the situation and the people taking part, as social interactions invariably do—activities express established practices of a more general nature.

Article 1 uses literacy events as examples to discuss how changing technology can be implemented in teaching and teacher education and thus shape, reshape, and preserve the literacy practices of the English subject. Still, the terms literacy events and practices are not used in Article 1, primarily because it was a research field I was just entering when it was written. Barton’s observation that literacy events “are not neatly divided off from those which do not involve literacy” (2007, p. 183) made me cautious. Moreover, the focus on written text in the above definitions of literacy events that do not fully include visual, oral, or other aspects of multimodal texts made me hesitant. Looking back, however, it is evident that the first article exploring literacy in the context of digital media does indeed examine literacy events, texts, and practices, based on examples of literacy events and the resultant text creation. Moreover, Barton and Hamilton (2000, p. 9) show that their notion of text includes multimodal texts, which “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).

Article 3 looks at exam texts and tasks set for summative assessment. The article thus focuses more on the role of the text in literacy events and practices. It regards exams as institutionalized literacy events and sees these exam texts as expressions of values and cultures for thinking about literacy that form and are integral to the literacy practices in the English school subject in Norway. Chapter 5 goes into greater depth on these issues.

3.2.2 Literacy, agency, and Bildung

Mastery of literacy is a prerequisite for functioning well in society (Skjelbred & Veum, 2013). Historically, in Scandinavia and northern Europe, the Reformation and Protestantism gradually led to widespread literacy, especially after the middle of the 18th century (Stordalen, 2019). Today, literacy is indispensable for active participation in society: “to earn a decent living in the knowledge-based globalized labor market; and to participate in a democracy facing complex problems” (Murnane et al., 2012, p. 3). Literacy is regarded as foundational for democracy and participation in society (Freire, 1993 [1968]).¹⁹ However, literacy is not in itself liberating and can even be an instrument of domination. Ideologies and propaganda can be promoted via the texts used for literacy teaching. Indeed, the belief that literacy inevitably brings positive effects in terms of economic, democratic, or cognitive development has been challenged as a literacy myth that needs to be taken into account (Graff, 2010). Nevertheless, literacy can provide access to texts beyond the dominating ideology in which it was first fostered.

Public education is a means of democratizing society by giving access to elite institutions built on law, science, and literature (Olson, 2000). Similarly, UNESCO’s oft-quoted proposed definition emphasizes literacy as fundamental for community involvement and agency:

Literacy is the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve his or her goals, develop his or her knowledge and potential and participate fully in community and wider society. (UNESCO, 2005, p. 21)

In addition to looking at what literacy can enable, it is of interest to ask what sort of texts are included in definitions of literacy. In UNESCO’s definition, the phrase “printed

¹⁹ Freire also promoted a literacy pedagogy that is grounded in social environment and context, and though Freire built on Saussure in his writings, a social semiotic multimodal perspective complements Freire’s pedagogy quite well (Zelaya, 2015).

and written materials” shows a view of literacy attached to paper and writing. Printed material, however, can be densely multimodal.

Becoming an able democratic citizen by means of education is also an important element in the notion of *Bildung*.²⁰ Literacy and *Bildung* are intertwined, in the sense that being able to read and interpret a canon of literary classics was a central element of *Bildung*, at least historically speaking (Aamotsbakken & Knudsen, 2011). *Cultural literacy* (Hirsch, 1984) is a related concept employed in the United States that also endorses the idea that canonical texts promote personal growth and a deeper sense of edification. This view has been challenged and has changed, as can be seen in the recent Norwegian curricula, which do not define specific texts as reading material, unlike their predecessors, which provided an official canon (Ministry of Education and Research, 2013a). Under the new arrangement, textbook authors and teachers, therefore, select the reading material.²¹

The issue of knowing a (literary) canon is related to what Klafki (1996) calls material *Bildung*, where the focus is on contents. Other vital parts of *Bildung* are the notions of personal development, engagement and critical thinking, and the ability to learn. Klafki categorizes this part as formal *Bildung*. Klafki states that the two kinds of *Bildung* are abstract, yet when joined, material and formal *Bildung* contribute to an understanding of how the two in dialogic combination create categorical *Bildung* (1996). In order to achieve this combined *Bildung*, education should be based on *exemplary teaching* (Straum, 2018). Briefly stated, this emphasis on finding the right texts and ways of working with them to stimulate students’ categorical *Bildung* was a harbinger of the academic field of subject didactics (Fenner, 2005; Klafki, 1996). In current didactic thinking, the issues of finding exemplary texts and the discussion about reading literature and other texts for different reasons, ranging from aesthetic pleasure to

²⁰ Words like “formation” (Løvlie, 2017), “edification,” and “cultivation” are often used to translate *Bildung* into English, without success (Horlacher, 2016). Most scholars therefore use the German word (e.g., Biesta, 2002, p. 390f; Fenner, 2020; Siljander & Sutinen, 2012, p. 2).

²¹ Norwegian teachers’ selection of classroom texts for English has been researched by Bakken (2018) in the context of lower secondary school and Lyngstad (2019) in upper secondary school English.

intercultural competence to instrumental use of literature for language learning, are still highly relevant (Fenner & Ørevik, 2018; Hennig, 2017, pp. 29-40). Development of literacy as a prerequisite for access to society and democratic participation is now a field of interest that didactics shares with media workers, librarians, archivists, and information technology workers (Nicolaysen, 2005, p. 29).

Bildung is closely linked to literacy, and the curriculum purpose statement says that “English as a school subject is both a tool and *a way of gaining knowledge and personal insight* [emphasis added]” (Ministry of Education and Research, 2013a, p. 2).²² As Gee (2015) has pointed out, there is no automatic link between literacy and its Bildung effects, and “something beyond literacy itself must trigger this capacity or serve as catalyst” (p. 31). In the English subject curriculum, there is a focus on L2 English as a way to open doors to the world and on cultural insight as a basis for democracy:

Development of communicative language skills and cultural insight can promote greater interaction, understanding and respect between persons with different cultural backgrounds. Thus, language and cultural competence promote the general education perspective and strengthen democratic involvement and co-citizenship. (Ministry of Education and Research, 2013a, p. 2)²³

As a school subject, English in Norway has been pulled between different educational traditions (Rindal, 2014; Ytreberg, 1993). Fenner (2005, p. 85) points out a culture collision between a Germanic Bildung tradition and a Norwegian democratization process in schools on the one hand, and a British utilitarian and skill-focused tradition on the other. Both are present in English didactics today, as I interpret the present curriculum documents. Moreover, the Council of Europe’s *Common European Framework of References for Languages* (2001) has been highly influential in directing attention to skills, and knowledge, especially cultural knowledge in language education. These multilayered educational traditions and ideologies influence the social practice of

²² I have added italics to the official translation to indicate where the Norwegian original uses the single word *danning* (cf. footnote 20).

²³ This curriculum was in force during my fieldwork. A renewal of the curriculum (see section 2.2.5) has since been introduced by the Ministry of Education and Research (2019c).

English teaching. I concur with Rindal's view that "English instruction must encompass both linguistic skills and sociolinguistic ones" (Rindal, 2014, p. 15). Both are included in the idea of *communicative competence*, a term coined by Hymes (1972) and a language teaching paradigm that has characterized Norwegian education since the late 1970s (Skulstad, 2020). Whether the curriculum and nationally given tests place more emphasis on the Bildung tradition and its opportunity for critical thinking (Fenner, 2005, p. 100) or on linguistic skills will affect the literacy practices of the English subject and subsequently what is valued, taught, and assessed. Each binary is connected to different social contexts in which literacy will play different roles.

3.2.3 Literacy and basic skills

Literacy is sometimes used as a broad term for communicational skills: "Now when people speak of literacy, they often include listening, talking, reading, writing, viewing and critical thinking" (Makin & Whitehead, 2004, p. 116). This broad understanding of literacy is a reflection of an extended understanding of the word text and the skills needed to make meaning with (multimodal) texts (Blikstad-Balas, 2016, p. 10) and to learn from texts. When the LK06 curriculum was introduced in Norway it was called a "literacy reform" (Berge, 2005) due to its focus on basic skills (reading, writing, oral, digital skills, and numeracy). It is also time to ask to what extent literacy is a term that has taken over the position and function of Bildung as the principal goal of education. The word literacy itself is not used in the curriculum, but it is widely used in policy documents (e.g., NOU 2015:8, p. 28), in higher education, and in research contexts (Blikstad-Balas, 2016; Skjelbred & Veum, 2013). Literacy in this sense is consequently an academic term, not an everyday term used by teachers.

Another concern is how the word literacy has become a synonym for competence or proficiency: "it seems that almost any knowledge and learning deemed educationally valuable can somehow or other be conceived as a literacy" (Lankshear & Knobel, 2011, p. 21). Looking at the etymology, literacy is the ability to read and write alphabetically: "The term *literacy* itself is from the Latin term *litteratus*, which means *marked with letters*. Strictly speaking, then, references to literacy ought to involve facility with

language-based symbol systems,” according to Smagorinsky (2011, p. 193). However, expressions like “physical literacy” (Whitehead, 2010) and “food literacy” (Pray et al., 2016) are but two examples of what many regard as a regrettable dilution of the word. Similarly, Kress (2003) notes “these metaphoric uses” and argues that literacy should be retained for “the use of the resource of writing” (Kress, 2003, pp. 23-24). However, Lankshear and Knobel see the widespread use of the term in a positive light, as reflecting the fact that literacy has become a focal “education ideal” (2011, p. 21). Similar collocations like visual literacy and multimodal literacy are frequent in the research field, and I think they serve a purpose as tools for talking about specific parts of a wider view of literacy and competences that are after all quite often linked to writing.

Though he does not promote *multimodal* literacy, Buckingham suggests a reconceptualization of literacy in correlation with new textual forms in digital media:

The increasing convergence of contemporary media means that we need to be addressing the skills and competencies—the multiple literacies—that are required by the whole range of contemporary forms of communication. Rather than simply adding media or digital literacy to the curriculum menu, or hiving off information and communication technology into a separate school subject, we need a much broader reconceptualization of what we mean by literacy in a world that is increasingly dominated by electronic media. (Buckingham, 2006, p. 275)

There is no doubt that the notion of plural literacies is useful. It is important to be aware of how literacy has been converted into a synonym for skill and competence in many ways, thus drifting far away from the word’s etymological origins.

3.3 Multimodality

Multimodality looks at the many ways that people communicate—image, gesture, writing, and so on—and how these approaches to making meaning are combined. Slicing up the concept, *multi* points to many, and *mode* refers to the way meaning making happens. In almost every context in which people communicate, more than one mode is used: for example, gesture and speech are often deployed together. There are several approaches to multimodal analysis, the most common of which are conversation

analysis, functional linguistics, and social semiotics (Jewitt et al., 2016). This thesis makes use of a social semiotic approach to multimodality, as outlined by Kress and van Leeuwen (1996, 2006, 2021), Jewitt (2006, 2014b), van Leeuwen (2005), Løvland (2007, 2011), Maagerø and Tønnessen (2014), and Bezemer and Kress (2016), among others. I begin with a look at social semiotics before exploring the terms *mode* and *affordance* more deeply, given their centrality to multimodality.

3.3.1 Semiotics and social semiotic perspectives

Social semiotics is a theory that regards communication as founded on people's need to interact and make meaning. It has its root in semiotics, the study of the meaning of signs, which is based on the understanding that texts are comprised of signs that carry meaning. Developed in two different strands by the Swiss linguist Ferdinand de Saussure and the American philosopher Charles S. Peirce, semiotics then branched off into several directions. In France, Roland Barthes (1977) made use of Saussure's notion of the sign, to look at the relation between writing and image. Using the terms *ancrage* ("anchorage") and *relais* ("relay"), Barthes asked what function the linguistic message in the text has in relation to the iconic message of the image. Any image is polysemic, and the written text therefore plays an important role in the interpretation. Image is open to interpretation, and seeking a message in or meaning of an image, people systematically look for clues. We try, says Barthes, to create a unity of the indications offered by the image and writing.

Systemic functional linguistics and social semiotics are further developments of semiotics and were developed by Halliday (1978) and later by Hodge and Kress (1988), among others. The latter two scholars emphasize a broad take on the study of communication:

In academic institutions today the study of such phenomena is often fragmented and parcelled out amongst a multitude of disciplines: psychology (in its many competing schools), sociology, anthropology, history, philosophy, linguistics, literature, art and film studies, to name only some of the most prominent. Semiotics offers the promise of a systematic,

comprehensive, and coherent study of communications phenomena as a whole, not just instances of it. (Hodge & Kress, 1988, p. 1)

This wish to create an encompassing, interdisciplinary theory of social meaning making has been carried on by Kress and van Leeuwen in several works (e.g. 2021) and by Bezemer and Kress (2016). Social semiotics draws attention to society and culture, how people have different semiotic resources at hand, and that people's choice and use of those resources are shaped by specific social and cultural factors.

Social semiotics regards language as functional and makes use of Halliday's analytical framework of three *metafunctions*, or aspects, of meaning making: the ideational, the interpersonal, and the compositional (Halliday & Hasan, 1976, pp. 26-27). Ideational meaning (sometimes called referential, experiential, or logical meaning) is the metafunction that represents the speaker's view of the world and expresses content. The interpersonal metafunction relates to how social functions and relationships between the sign-maker and the "recipient" influence how the sign-maker chooses to express meaning (orientational meaning). Textual (also called compositional) metafunction deals with the form of text, and how texts are organized as coherent communicative textual units. These three dimensions of meaning making are not always brought to the fore in my analyses, but they are embedded in the social semiotic multimodal analysis I employ. All the metafunctions are involved in teaching and learning. Whether it is teachers or students who communicate, they aim to represent and interact, and the material form that this takes is shaped by social relations and conventions and by the material availability of resources for expression (Kress, 2003). In education, written or printed texts have long held a central place in institutions (Fritze et al., 2016; Kress, 2003). However, this social dominance of writing is changing, and other modes are also emerging as important. I turn now to modes and affordances, beginning with a look at multimodal texts.

3.3.2 Multimodal texts, modes, and affordances

Multimodal texts are "texts made up of elements of modes which are based on different logics" (Kress, 2003, p. 46). As noted, multimodal texts communicate using a

combination of two or more modes, like moving images and music in film or images and printed text in books; they surround us both in everyday life and in school (Bezemer & Kress, 2016; Kress & Jewitt, 2003; Maagerø & Tønnessen, 2014).

A mode is a way of making meaning: “*Mode* is the name for a culturally and socially fashioned resource for representation and communication” (Kress, 2003, p. 45 [italics in original]). This is an oft-cited²⁴ but complex and even impenetrable definition of one of the most central concepts of multimodality. Adding examples to this definition makes it more accessible: “*Image, writing, layout, music, gesture, speech, moving image, soundtrack* are examples of modes used in representation and communication” (Kress, 2014, p. 60 [italics in original]). Another closely related term is *semiotic resource*, which van Leeuwen describes as

the actions, materials and artefacts we use for communicative purposes, whether produced physiologically—for example, with our vocal apparatus, the muscles we use to make facial expressions and gestures—or technology—for example with pen and ink, or computer hardware and software—together with the ways in which these resources can be organized. (van Leeuwen, 2005, p. 285)

I understand semiotic resources as intersecting very closely with the concept of *mode* (e.g. Kress, 2014; Kress & van Leeuwen, 2001, p. 21). Definitions of both terms differ in various approaches to multimodality (Jewitt et al., 2016, p. 12). In a Norwegian context, for example, the term *mode*²⁵ is regarded by many researchers as a category developing through regular use of semiotic resources, by which rules or conventions emerge and create a kind of grammar for how best they be used and interpreted (Kvåle,

²⁴ Similar explanations include “*mode* is a socially shaped and culturally given resource for making meaning” (Kress, 2014, p. 60), and modes are “socially shaped, culturally available *material* resources” (Bezemer & Kress, 2016, p.7).

²⁵ The term translates to *modalitet* in Norwegian and becomes something of a false friend in that Norwegians, when producing English, easily mistake “modality” to be the English equivalent, when in fact there is already a different use of that word. *Modality* is inherited from social semiotics and Halliday and signifies the degree of truth in a representation. To replace this word, van Leeuwen and Kress, in their third and latest edition of their seminal work *Reading Images: The Grammar of Visual Design* (2021), use *validity* instead, noting that it “has the advantage that it can encompass what seem to be different types of truth that are realized in different semiotic modes, and at the same time express the social semiotic core idea that modality, to use the term one more time, is based on the values, beliefs and social needs of social groups” (p. 154). They add that the term *mode* “also introduced an unfortunate homophone” (p. xvii) with modality.

2012, pp. 16-17; Løvland, 2006, pp. 27-28; Tønnessen, 2010b, p. 13). Thus, semiotic resources have meaning potentials that may or may not be used, whereas modes are the categories or groups of semiotic resources that arise from previous uses and conventions and that shape future use. Mode is thus a classification for analysis rather than a static unity.

In my analyses, I apply a definition of mode that is flexible and responsive to the social and cultural setting:

In social semiotics, what is to count as mode is treated as a matter for decision by communities and their social representational needs. For the “ordinary” user of the mode of writing, *font* is part of that mode. For a typesetter or graphic designer, the meaning potentials—the affordances—of font are such that it can be used as mode; that is, meaning can be made through the affordances of font. What counts as mode depends on sign makers acting within the needs and understanding of a particular community and its more or less conventionalized practices. (Bezemer & Kress, 2008, p. 172)

Even though this can make mode a less precise term, I think it provides sufficient frames for understanding and reflecting on the modes that make a difference in a given situation. The flexibility also offers an incentive to look closely at which affordances of modes are actually used in specific settings and texts.

Modes and semiotic resources have different *affordances*; that is, the potential and limitations of what they can do (Jewitt et al., 2016, p. 72; Kress, 2010, p. 157). Affordance is a concept introduced by the American psychologist Gibson (2015 [1979])²⁶ to describe the complementary relationship between object and actor (an animal in Gibson’s examples) as to which possibilities are visible to, available to, or made use of by that actor. The notion of affordance is now widely used in research on digital technology and design, but more in the sense taken up by Norman (2002, p. 9) which “refers to the perceived and actual properties of the thing” and thus something inherent in an object. Social semiotic scholars such as Kress (2010, p. 83) and van

²⁶ “The verb *to afford* is found in the dictionary, but the noun *affordance* is not. I have made it up. I mean by it something that refers to both the environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment” (Gibson, 2015/1979).

Leeuwen (2005, p. 285) highlight the complementarity of material form and social and cultural practices for meaning making. The affordance of a mode is shaped by what it offers materially, *and* “what it has been repeatedly used to mean and do, and the social conventions that inform its use in context” (Jewitt, 2006, p. 26). In this thesis, I talk about not only the affordances of modes but also the affordances of technology.

Each mode involves certain *logics* based on time and space. For example, Kress explains that image is based on the logics of space, a logic that entails simultaneity, in contrast to the sequential logic that comes with time (Kress, 2003, pp. 19-20). Time-based modes include speech and dance for example, but both logics exist simultaneously in many modes, such as writing. Affordances and logics are thus interconnected. In an educational setting, maps can show the geographical position of a country, with words describing the lore and history of the area. By making use of the most suitable mode for the communicational task, meaning making is facilitated; by combining modes with different affordances, more complex meaning can be communicated in multimodal texts (see section 3.4).

Baldry and Thibault (2006) point out that the expression “multimodal text” is unnecessary, as “in practice, texts of all kinds are *always* multimodal, making use of, and combining, the resources of diverse semiotic systems in ways that are both *generic* (i.e., standardized) and *text-specific* (i.e., individual, even innovative) aspects” (p. 19). Looking at this very page, for example, it looks monomodal at first glance, as it consists only of printed text. A more careful look, though, shows that choice of font, color, annotation style, citation style, and layout, including using indented block format for longer quotations, are all ways to make meaning through convention and visual modes (Maagerø, 2005, pp. 30-31). Since these are firmly culturally established features of the academic genre, they will help the experienced reader make meaning of the text.

Stöckl (2004) calls multimodality “the late discovery of the obvious,” stating that it

addresses a phenomenon which is as old as representation itself and crucial to an understanding of almost all forms of communication: multimodal refers to communicative artefacts and processes which combine various sign

systems (modes) and whose production and reception calls upon the communicators to semantically and formally interrelate all sign repertoires present. (Stöckl, 2004, p. 9)

Similarly, when looking at the materiality of media, Mitchell (2005) criticizes as outdated the taxonomy of image and text, saying that there are no “purely” visual media because all media are mixed. In view of the fact that “even traditional books, of whatever kind, have pictures, gutters, trim sizes, fonts and illustration styles with color or in black and white” (Rowse et al., 2013, p. 1183) and are by definition multimodal, it is relevant to ask whether there is any need to use the term *multimodal text*.

Monomodality is not an actual antonym to multimodality in this view, but instead “a way of thinking about individual semiotic resources once abstracted from the communicative ensembles in which they occur” (Page, 2010, p. 4). Kvåle (2012, p. 14) points out how multimodality primarily describes the analytical perspective a researcher has on a given text, and that calling a text multimodal is a way of foregrounding its composite qualities. In my opinion, the use of multimodal text is helpful in the sense that it is often applied to texts with a higher degree of what Norris (2014, p. 86) calls *modal density*. For texts with “complexly intertwined multiple modes” (Norris, 2014, p. 90), I believe it is highly relevant to draw attention to modal density by identifying such texts as multimodal texts. All scholars in the field acknowledge that all texts are multimodal (e.g. Kress, 2010, p. 157), but by highlighting the term multimodal text in educational settings, the multimodal aspects of texts are made explicit. Multimodality is about paying attention to the integration of all modes in ensembles, noticing what role each mode plays in the entirety of the ensemble. This leads to the issue of multimodal interaction.

3.3.3 Multimodal interplay

Several metaphors can serve to illustrate how modes operate in relation to one another in a multimodal text. A mathematical metaphor to illustrate multimodal interplay is multiplication (Lemke, interviewed in Andersen et al., 2015, p. 125; Maagerø, 2005, p.

31; Thibault, 2000, p. 312). Modes in combination all multiply the meaning potential of one another:

When writing is distinguished from drawing, it becomes possible to compose multimedia texts, incorporating both semiotic modalities, and allowing us to multiply the meanings made with one by those made with the other, provided our community has established conventions for how to read such multimedia genres. (Lemke, 1998, p. n.p.)

Multiplication of meanings leads to the question, as Lemke states, of how to understand and interpret multimodal texts, and I return to the question of conventions in section 3.4.2.

Another metaphor that is familiar to teachers of English is using addition to say that the sum of one plus one, when image and text are combined, is greater than two.

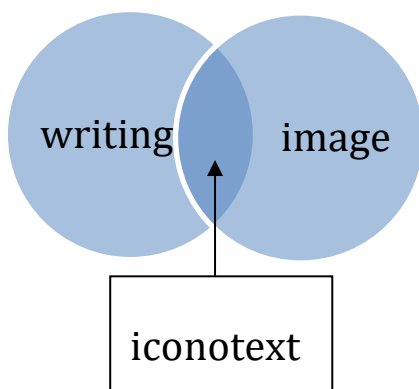


Figure 2: Visualization of iconotext

This mathematically impossible sum is what picture book theorist Hallberg (1982, p. 165) terms *iconotext*, in which two systematically different semiotic modes are combined when the text is read. I mention it here not because iconotext is a concept I use in my analyses, but because it demonstrates that thinking along these lines is familiar to language teachers from work with picturebooks. The notion of iconotext joins semiotics and hermeneutics in a fashion that makes sense to a humanist.

Kress employs musical metaphors in his description of interplay in multimodal texts:

Ensemble, in this context, names an emphasis on the *modal multiplicity* of the text, while *orchestration* names an emphasis on the *aptness* of the selection, the mutual interdependence and the “semiotic harmony” of such ensembles. (Kress, 2010, p. 157(emphasis in original))

I think this example is highly illustrative and provides a mental picture that explains multimodal interplay well.

I find it useful to make use of hermeneutics to understand how multimodal interplay takes place. Writing and image can express distinct parts of a message or story and create more complex meaning. The two (or more) modes go into a hermeneutic circle, as Nikolajeva and Scott (2006, p. 2) point out in their analytical framework for picturebooks. Reading goes from one mode that shapes the understanding of the other mode, which in turn influences the understanding of the first and the multimodal text as a whole. This can continue in a potentially endless cycle.

How modes interact can be described and classified in several ways. Barthes’s analytical terms anchorage and relay were noted in section 3.3.1. Other ways of looking at the interaction between modes are largely influenced by Halliday’s frameworks on cohesion in texts. Examples include Martinec and Salway (2005, p. 342), who distinguish three kinds of relationships between image and written text: *elaboration* (image clarifies text), *extension* (image adds information to writing), and *enhancement* (images supply information such as how, when, where, or why the text was taking place). Further, Royce (2002, pp. 194-198) looks at image and writing in a TESOL context, using the analytical lens of *intersemiotic repetition*, *synonymy*, *antonymy*, *hyponymy*, *meronymy*, and *collocation*. Royce reserves this detailed interrelatedness for analyses of the modes of image and writing for academic purposes and proposes a simplified Hallidayan approach for classroom use. He suggests increasing students’ awareness of images by looking at what images present, to whom, and how they do so, then relating them to the verbal modes. Yet another approach is that of Unsworth and Cléirigh (2014), who offer a highly detailed account of the relationship between image and text, here understood as writing. With examples from science and reading comprehension tests, they point out the importance of the relationship between these modes in filling in each other’s gaps:

“if the text does not gloss unfamiliar image segments or unfamiliar language is not visualized in images, inexperienced readers in the field can face significant difficulty” (p. 188). In other words, it can be an advantage, especially with young or inexperienced students, to use modes in learning material with different affordances that can complement each other.

I have chosen to use van Leeuwen’s (2005) framework for my analysis of multimodal cohesion, especially his section on information linking. Due to the fact that the texts I analyzed mainly contain writing and images, I have focused on van Leeuwen’s approach to looking at visual-verbal linking. His two main categories are *elaboration* and *extension*, each of which is subdivided. Elaboration can work as *specification* (one mode makes the other more specific) or *explanation* (paraphrase). Extension can take the shape of *similarity*, *contrast*, or *complement* (van Leeuwen, 2005, pp. 179-267). These relations between modes go into greater depth on the actual effect of the orchestration of modes and are therefore useful for systematic analysis.

Modes do not necessarily cooperate to create semiotic harmony in a text; indeed, they sometimes contrast with or even counteract each other. For example, body language can communicate the opposite of verbal language (Sidiropoulou, 2015), sometimes intentionally, or inadvertently betraying underlying conflict at other times. In an educational context, the question of cooperation between modes, or the lack thereof, is vital. On one hand, it is evident that it is advantageous for modes to work together to communicate a unified message. If a text is too complex, too unclear, or too fragmented, it may not be a good multimodal text for education (Maagerø, 2005, p. 32). On the other hand, complexity is something that students will encounter in their future lives; as they grow older, they need to encounter polysemic texts as part of their development of critical literacy (Abraham & Farías, 2017; Habegger-Conti, 2015). In the next section, I offer a more detailed account of multimodality and learning.

3.4 Design, multimodality, and learning

In his 2010 book about multimodality, Kress states that “learning is not a term that belongs in semiotics” (p. 178). However, he also maintains that no learning takes place unless meaning is being made through transformative engagement (Kress, 2010, p. 182). Halliday (1993, p. 93) expresses a similar view: “The distinctive characteristic of human learning is that it is a process of making meaning—a semiotic process.”²⁷ For multimodal social semiotics, the “role of the social and the material resources in and through which meaning is made and by which learning therefore takes place” (Kress, 2010, p. 178) is of interest. In a later work, Bezemer and Kress state that learning happens all the time, whether institutionalized in schools or in other arenas, and that “learning always results from engagement with the world” (Bezemer & Kress, 2016, p. 38).

From a sociocultural perspective, learning happens by participation in a social practice and is both a cognitive process and an act in which the learner participates in interaction with objects and with other participants in a community of practice. This builds on Vygotsky’s idea of the *zone of proximal development*:

It is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (Vygotsky, 1978, p. 86)

This term captures the social that Vygotsky saw as a foundation for human development; it was further added to with the term *scaffolding*, which denotes the temporary support that a teacher or another helper can provide to promote learning (Wood et al., 1976). Whether Vygotsky sees the “capable peers” in the quotation above as inclusive of a larger social community is not clear (Daniels, 2001, in Østerud & Schwebs, 2009, p.

²⁷ Halliday’s linguistic focus is reminiscent of Vygotsky when he continues, “and the prototypical form of human semiotic is language. Hence the ontogenesis of language is at the same time the ontogenesis of learning” (1993, p. 93).

29). Learning takes place in many locations and many forms, and not solely in educational settings alone. Learning is a life-long and continuous process.

3.4.1 Design

Design is often associated with the creation of form and function in fashion, furniture, industrial contexts, and so on. When the term is used with theory and research connected to literacy education, multimodality, and social semiotics, however, design is used in a slightly different way. The focus is still on form and functionality, but meaning making and learning are more important. Design has the “felicitous ambiguity” of being both a verb and a noun and can thus signify both process and product (Cazden et al., 1996, p. 73). Design for and in learning is central to Article 2. I begin with a look at the foundational contributions of the New London Group (NLG), then examine the notion of design and transformation, and finally move on to learning design.

3.4.2 The New London Group: Multiliteracies and Design

Literacy, multimodality, design, and learning are all present in the work of the NLG. It introduced *multiliteracies* as a pedagogy aimed at encompassing in literacy education the impact of a globalized communication and economy and the influence of information and communication technologies by describing the many ways of communicating. A pedagogy of multiliteracies seeks to address inequity (Cazden et al., 1996; Cope & Kalantzis, 2000). The NLG’s manifesto includes expanding the definition of literacy beyond language-based reading and writing, focusing on modes of representation much broader than language alone and those that differ according to culture and context. Gunther Kress was an NLG member, and there is a close connection between much of its thinking and social semiotic multimodality (Kress, 2009; Magnusson, 2014).

In terms of design, the NLG distinguishes between *Available design*, *Designing*, and *the Redesigned* (Cazden et al., 1996). Students learn to know the conventions associated with Available design, while in making meaning through reading, seeing, and listening, students are Designing (p. 75). When students make texts, they Redesign using semiotic

systems. Design is a dynamic process and is based on conventions that can be followed or altered. To design is to reshape the available resources, and design takes place in mental activities like reading and listening, as people shape their understandings. Design is also central to Kress's ideas about learning. In a text addressing TESOL teachers, he describes design as "the intentional deployment of resources in specific configurations to implement the purposes of the designers" (Kress, 2000, p. 340) and stresses the transformative and agentive aspects of learning and text creation that arise. Literacies are dynamic, and signs are made anew, according to Kress.

Another fundamental use of the term design by the NLG is highlighting six "design elements" (Cazden et al., 1996, p. 65) that are vital for education: the first five are linguistic, auditive, spatial, gestural, and visual design. The sixth element, multimodal design, describes the interplay that arises when two or more of the other five are combined, and all meaning making is multimodal in the sense that elements of design always appear in combination. Printed text, for example, has both linguistic and visual design, while linguistic and auditive design are combined in speech. These ideas are similar to those proposed in multimodal theoretical frameworks, and the NLG's pedagogical design elements are reminiscent of Kress and van Leeuwen's use of mode as a semiotic term (2001); mode is the term I have chosen for analytical purposes.

NLG's framework features four pedagogical processes: situated practice, overt instruction, critical framing, and transformed practice (Cazden et al., 1996, p. 64). The first, situated practice, is founded on the belief that students must be engaged in authentic situations to understand practice. The sociocultural context shapes knowledge, learning, and texts. Overt instruction, the second process, is about providing students with a metalanguage that enables them to understand structures and to see the form, contents, and functions of the discourses they encounter in their literacy practices. Third, critical framing includes being able to use that metalanguage to assess and understand texts and discourses, along with historical, ideological, and cultural factors. Finally, transformed practice means that students can use design elements according to their values and goals, based on the critical framing and the metalanguage they have learned

from overt instruction. It is thus a return to the practices and contexts where they are situated, but with knowledge that can be transferred to other contexts. Agency becomes central; the idea is that by scaffolding and critical framing, students are enabled to create their futures as active citizens in a global and technologically complex world (Cazden et al., 1996, p. 89).

Kress emphasizes the dynamic aspects of literacy by talking of multimodal design rather than reproduction as the aim of literacy: “the ability to assess what is needed in this situation now, for these conditions, these purposes, this audience” (Kress, 2003, p. 49). This is related to what the Norwegian curricula might call *recipient awareness*, but Kress’s thinking also involves the interest of the one who creates the message.

3.4.3 Designs for learning

Transformative engagement is also an important part of *designs for learning*, and the learning design sequence that the Swedish pedagogue Staffan Selander has developed in collaboration with Åkerfeldt and Kress, among others (Åkerfeldt & Åberg, 2021; Kress & Selander, 2012; Kress et al., 2021; Selander, 2008; Selander et al., 2021; Selander & Kress, 2010). Combining social semiotic and sociocultural theory, this design theoretical perspective puts transductive activities rather than reproductive ones at the center of learning (Selander, 2008, 2017b). The model of the learning sequence begins with the learning resources available for meaning making and the institutional norms and curriculum forming the task. Rather than simply absorbing the available resources, students interpret and convert them. Briefly explained, two cycles of transformation are presented in a model of formal learning settings (Selander et al., 2021; Selander & Kress, 2021, p. 107). After transforming knowledge in the first cycle using the modes and media available, the second cycle is about re-presenting knowledge according to the students’ own interest and understanding. These *signs of learning* can then be interpreted in assessment (Selander & Kress, 2021).

4 Review of previous research

This chapter presents an overview of published research on which this dissertation builds and is a supplement to the literature review sections of each of the three articles that appear in Part Two. My dissertation and thus this literature review include and straddle a number of disciplines and research areas. One is multimodality, and another, closely related field is literacy. Finally, there is the field of multimodality in ELT, which can be further divided into L1 and L2. Each area is relevant to my research; when combined, the research area becomes focused on multimodal literacy in English education (see Figure 3).

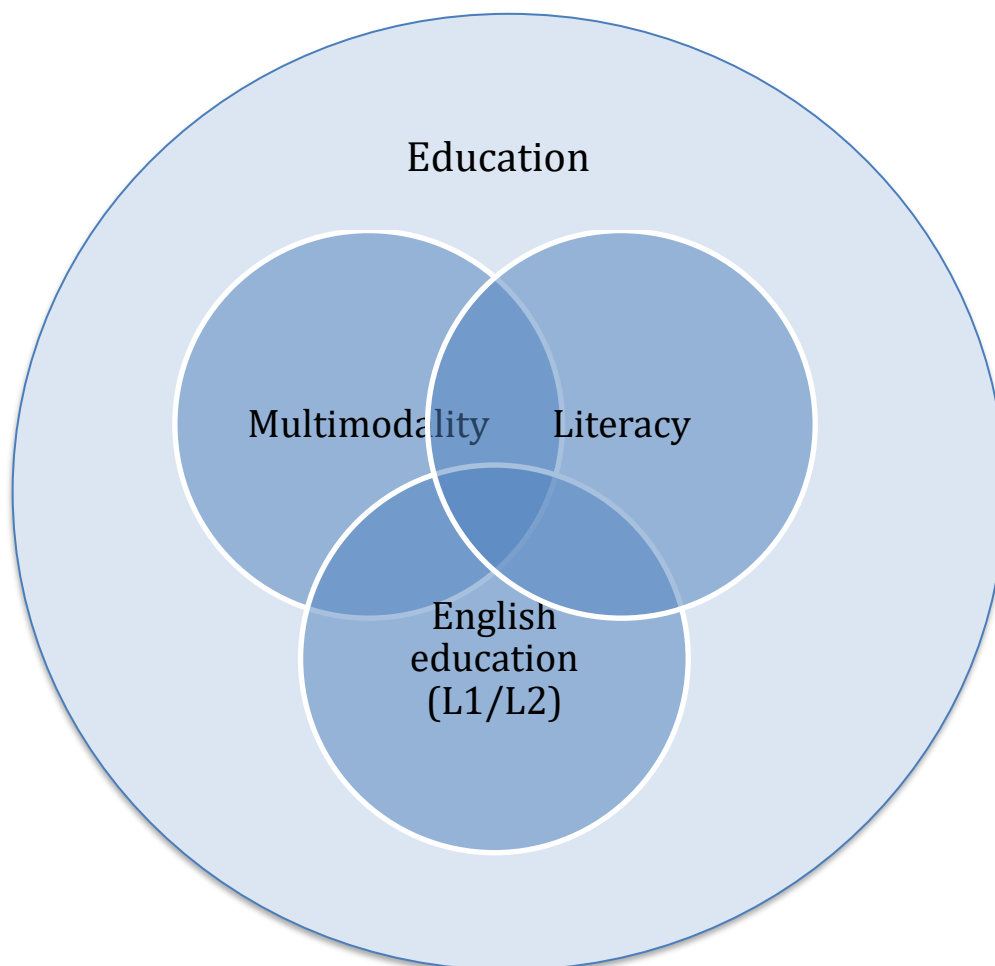


Figure 3: Intersecting fields of research.

All three circles outlined in the center of the figure constitute large research fields and combining them narrows the scope. However, I do include certain influential studies that only pertain to one or two of the circles. What I present here is based on a selection of publications relevant to the topic of this thesis (Maxwell, 2006, p. 28) rather than a complete overview of research (Boote & Beile, 2005, p. 8). The first part gives a broad view of international literature reviews that look at multimodality and multiliteracies in relation to English. The second part focuses on research from Norway and other Nordic countries, both because this is my research context, and because multimodality in education was introduced early with LK06. Finally, the review focuses on topics with which this dissertation engages in the areas of multimodality, literacy, and English education.

4.1 Literature search strategies

Active literature searches and snowballing were the main approaches used to get to know the research field (Hart, 2018). As to active literature searches, I used Oria, the search engine of Norway's university libraries. In addition, I used the following databases and services: EBSCOhost, Scopus, ERIC, ResearchGate, and Google Scholar. Keywords used for Boolean searches were combinations of keywords: 1) multimodal, multimodality; 2) literacy, multiliteracies, learning, reading, writing, assessment; 3) English, EFL, ESL, ELT, TESOL, L2, ELL. I also searched for Norwegian keywords like *sammensatte tekster*, *multimodale tekster*, *grunnleggende ferdigheter*, and *engelsk/undervisning/didaktikk*. These keywords come from the three areas outlined in the circles in Figure 3. Searches were repeated along the way as my research developed, as is common in case studies (Bloomberg & Volpe, 2012, p. 76).

Snowballing and manual searches proved to be an important complement to database searches in finding relevant research. I have systematically and manually searched key journals such as *Designs for Learning*, *System*, and *Visual Communication*. Furthermore, I have investigated the sources listed in relevant articles to find more

material. This is known as backwards snowballing (Wohlin, 2014), as it provides access to previously published research, especially seminal works. Based on an article accessed online, more and more publishers suggest additional articles that may be of interest, which is known as *forward snowballing* (Wohlin, 2014); this helped find more recent publications that build on the research papers found at the beginning of my studies. Likewise, citation tracking (provided by both Oria and publishing houses) has helped me identify new research that cites the publications I have found useful.

The publications reviewed here are mainly thematically, and some also methodologically, related to this thesis; they represent the research field into which I aim to enter. This review includes other literature reviews and publications based on original research published in peer-reviewed journals and edited books. I have also included relevant Ph.D. theses. Following the main focus on multimodality and literacy in the English subject, I mainly delimit this overview to studies that focus on lower secondary education, secondary education, and higher education (including teacher education) when it comes to international research on multimodal literacy practices in English.

My approach to the literature review has both strengths and weaknesses. Intersecting research fields and the consequent interdisciplinary combinations of search terms led to a large number of results, and I sifted relevant from less vital publications by reading abstracts and conclusions. Thus, a possible weakness is that some studies may have been overlooked as tangents, because I endeavored to be stringent about scope during my reading. On the other hand, the strength of using an assortment of keywords producing copious results is that I have perused and browsed papers that have opened new horizons, such as linguistics, discourse analysis, cognitive theory, and pedagogy and assessment.

4.2 Literature reviews from the international field of multimodality, literacy, and English education

Internationally, the relatively high number of literature reviews that discuss multimodality, literacy, and L1 and L2 English education show that the research field is thriving. I located 17 peer-reviewed literature review articles published between 2006 and 2022 that look at multimodality, literacy, and English. They range in scope from broad looks at multimodality and literacy in English education (e.g. Winters, 2010; Yi, 2014) to a more narrow examination of research on either reading (Abraham & Farías, 2017) or composing multimodal texts (Nash, 2018; Zhang et al., 2021). While there is a tendency for earlier reviews to put more emphasis on justifying multimodality as an approach and highlighting the possibilities inherent in a multimodal and multiliteracies pedagogy (e.g. Jewitt, 2008a; Mills, 2010), later reviews warn against “romanticizing” multimodal pedagogies and point out the challenges associated with them (Nash, 2018; Smith, 2014; Smith et al., 2020).

One of the first review articles to inform my study is Siegel (2006), who offers a warning about the collision between the possibilities in a multiliteracies–multimodal approach to literacy and the pressure of assessment and accountability cultures in (American) education: “Multimodalities and multiliteracies have appeared on the literacy landscape at the very moment when literacy is shrinking to fit federal and state educational policies that place severe limits on what it means to be literate, and thus, on *who* can be literate” (p. 75). This discrepancy inspired me to investigate the case of school-leaving English exams in Norway.

Siegel’s article provides a comprehensive overview of the semiotic foundation for multimodality and systematically traces the changes in research literature from transmediation to research on multimodality. She points out how acknowledging multimodality as part of literacy is very much a political and social issue, as it can give a means of expression to students who do not master a language well: “those youth who experience substantial success are the very ones who’ve been labeled ‘struggling reader’ or ‘learning disabled’ or whose semiotic toolkits consist of resources and sociocultural

practices other than those defined as standard in school literacy” (Siegel, 2006, p. 73). According to Siegel, one change in L1 literacy curricula brought by multimodality is a focus on metalanguage and critical framing. She also suggests that school literacy does not prepare students for literate futures (Siegel, 2006, p. 73), thus reinforcing Kress and van Leeuwen (2006, p. 17).

Jewitt’s (2008a) seminal review is, like Siegel’s, written in the context of L1 English. Her article is in many ways a manifesto for multimodality: “It sets out to highlight key definitions in an expanded approach to new literacies, then to link these to emergent studies of schooling and classroom practice” (Jewitt, 2008a, p. 242). Jewitt shows how multiliteracies pedagogy and new understandings of literacy introduced by NLS are both responses to societal change and linked to the notion of multimodality. She points out how multimodality has been further developed and theorized since its origins in linguistics. Importantly, she offers this characterization:

A multimodal approach to literacy focuses on the representations of students across different sites of learning and raises questions about how curriculum knowledge is organized, classified, represented, and communicated. It asks how different representations and modes of communication shape knowledge as well as locate and connect knowledge to the world. It queries what and how teachers and students can do with school knowledge. (Jewitt, 2008a, p. 255)

Jewitt argues powerfully in favor of using a multimodal approach to explore literacy and learning: “Multimodality offers new ways to think about learning via a focus on meaning making as a process of design” (Jewitt, 2008a, p. 263). I came across her review early in my research, and it has influenced my focus significantly, first as an affirmation of multimodality and literacy as a worthwhile subject and then in the value of the notion of design. Jewitt’s other research in education includes classroom interaction and technologies (Jewitt, 2002, 2006, 2008b, 2011) and both showcases multimodal methodology in research and offers insights into how multimodal and digital texts shape education.

Some of the review articles explore how multimodality can be used for better, more efficient learning related to both acquisition and the classic language skills of reading, writing, speaking, and listening (Farías et al., 2007; Si et al., 2022). Lotherington and Jenson (2011) and Si et al. (2022), however, found two main obstacles that work against the promise of multimodal innovative pedagogical approaches: slowness in teacher education to take up new technologies for language learning, and restrictions posed by standardized testing.

Assessment comes up again and again in the research literature as a challenge, and consequently also in the literature reviews that deal with multimodality, literacy, and English (e.g. Smith, 2014; Tan et al., 2020; Yi, 2014). Anderson and Kachorsky (2019, p. 313) find a “lack of detailed accounting for assessment of [multimodal] compositions in the classroom” and classify three different kinds of studies on assessment. They locate the first type as aiming to reshape assessment to promote equity, the second type as arguing for the inclusion of a multiplicity of modes to “promote multiliteracies development” (p. 324), and the third as arguing that including multimodal tasks in assessment allows students to demonstrate their understanding in more accurate ways (p. 323). While these categories can be useful tools for understanding the field, I am not convinced that it is possible to separate one issue from another. The question of “what counts” in assessment in the L2 English subject is under constant negotiation (Tornberg, 2013).

Yi says that adolescent multilingual learners are apt to engage frequently in multimodal literacy activities outside of school and are likely to benefit from multimodal practices in school (Yi, 2014, p. 159), which resonates with the claims made by Siegel about who benefits from including multimodal literacy. One of the most pragmatic parts of Yi’s review consists of shedding light on the apprehensions teachers may have about multimodality. Despite the many positive aspects Yi cites—such as being able to express identity, improving academic learning by promoting content learning, improving attendance, and finally developing critical literacy by means of including multimodality in literacy teaching—there remains a concern among teachers that the

production of multimodal texts can also mean that students will not acquire linguistic competence. For instance, multimodal texts can be a way of producing meaning without getting enough training in producing extended texts and developing academic literacy. Yi finds that “multimodal literacy experience is rather limited to a narrative genre” (p. 165) and that informative and argumentative genres are left out. This is an important concern, for which Article 1 of this dissertation offers a possible resolution. Moreover, Yi observes that prescribed learning outcomes do not easily integrate multimodal work and that “innovative and engaging multimodal literacy practices often took place on the margins of the core curriculum” (2014, p. 165).²⁸ One such case in Norwegian education is the elective In-Depth Studies in English (see section 2.2.4). Reiterating concerns about assessment, Yi finds that research shows that “the high-stakes language-dominant testing is considered as one impeding factor that discourages a classroom teacher from giving priorities to multimodal literacies” and she refers to L1 research showing the same (p. 165). Finally, she points out a hierarchy that places digital and multimodal texts below writing-based and often paper-based ones as less suitable as teaching material.

Yi makes clear that the ideas presented by the NLG serve as a basis for her understanding of multimodality. She also emphasizes that “a distinction between traditional, print-based literacy and multimodal literacy is a false dichotomy” and “a repertoire of both print and digital/multimodal literacy practice is required for everyday life and future work” (p. 160). This duality seems obvious to me, but I agree that it is wise to point it out so as to avoid seeing multimodal literacy as somehow displacing traditional literacies (see also Connors & Sullivan, 2012).

A gap between theory and practice is pointed out in literature reviews by Rajendram (2015) and Nash (2018). While Rajendram looks at multiliteracies and multimodality with a focus on L2 learners in Canada, Nash excludes studies on EFL. Still, they both identify a gap between the abundant theoretical research on multimodality and the scarcity of studies on the implementation of multimodal practices. They direct future

²⁸ Not to be confused with the Norwegian Core Curriculum.

research toward the development and implementation of assessment of multimodal texts (Rajendram, 2015, p. 10) and “nuances of instructional practice or the struggles teachers face as they implement pedagogies that often require paradigm shifts in thinking” (Nash, 2018, p. 353).

Several research topics are recurrently identified in the literature reviews I examined; they are well summed up in the most recent review. Focusing on multimodal pedagogies in the primary and secondary English classroom, Lim et al. (2022) find five common themes. First is engagement with multimodal texts from students’ life worlds. Second is the use of multimodal pedagogies for creative, critical, and culturally responsive classroom activities, again related to students’ life worlds. The third common theme was explicit teaching of multimodal literacy and metalanguage, and the fourth is one that few other reviewers mention; namely, that of affect and emotion in the encounter with multimodal literacy practices. However, the fifth, assessment, is a prevalent theme in most of the reviews I examined. Lim et al. (2022) use strong language such as “perennial” concern (p. 10) and “continually haunt” (p. 8) to characterize the challenge that assessment poses for multimodal pedagogies. Not least of all, they point out that “assessment also has profound influence over the teachers’ pedagogical practices” (p. 9). Against this backdrop, I now turn to examine research in the Nordic context in greater detail and move on to international research.

4.3 Nordic research on multimodality and literacy in L1 and L2

In a meta-analysis of 56 empirical studies from the Nordic countries on multimodality in the L1 subject, Elf et al. (2018) found both similarities and differences across the countries’ implementation of multimodality into the L1 subject. One common trait they point out is that multimodality in teaching makes for a *cultural change*, in the sense that it challenges traditional notions of text (Elf et al., 2018, p. 86). I believe that this shows that the extended notion of text is probably not as well established as one might expect. Second, their study finds that there is a particular emphasis on receptive rather than productive practices (p. 88). Finally, it is noted that assessment of multimodal practices is perceived as a major challenge by teachers (Elf et al., 2018, pp. 73, 91). The overall

conclusion of the study is that there is a serious discrepancy between the formal and the realized curricula, due in part to a lack of post-qualifying education for in-service teachers and in part to unclear norms and criteria for formative assessment of multimodal teaching and learning (Elf et al., 2018, p. 96).

In the field of education in Sweden, there is a great deal of attention to multimodality. Selander has worked extensively with design-oriented approaches to multimodality, both on his own and with others (Danielsson & Selander, 2016; Selander, 2017a; Selander & Kress, 2010; Selander & Svärde-Åberg, 2009). Empirical research that employs this framework has looked at multiliteracies (Magnusson, 2014) and digital tools in relation to multimodal texts (Svärde-Åberg & Åkerfeldt, 2017), with a recurring conclusion that assessment practices need to be developed to embrace multimodal practices. Assessment of multimodal texts produced by students in L1 education has been addressed in depth by Godhe (2014) and Borgfeldt (2017), who both found that spoken and written words are judged as more important by teachers. Svärde-Åberg and Åkerfeldt (2017) looked at multimodal assessment at the upper secondary level. They propose a multimodal metalanguage for visual, auditory, and linguistic (written) design that supports both formative and summative assessment of multimodal composition.

Looking at L1 Danish grade eight students in her doctoral research, Christensen (2015) investigated feedback practices in relationship to multimodal texts and textual ability. One of her main findings is that students do not make use of all the feedback the teacher provides. Furthermore, she found that in choosing model texts as prompts, weaker students tended to choose the written mode and create similar texts, whereas stronger students were able to use all available modes and carried out transductive work (Kress, 2003). This is the opposite of what some of the Anglophone research has found, where there is a focus on the positive effect of letting L2 students create multimodal texts, enabling more self-expression and enhancing identity building (Ajayi, 2008, 2009; Choi & Yi, 2016). I suggest that one possible reason for this difference between L1 and L2 users is that they struggle in different areas. I hypothesize that weaker L1 students may

lack the meta-perspective on their work that is necessary to create a coherent multimodal text (Christensen, 2015, pp. 310-311), whereas the L2 students who learn English in the context of an English-speaking country (i.e., EAL) may have challenges related to language rather than challenges with textual and design aspects. Scaffolding L2 learners' linguistic modes with other modes means that they can express more and communicate with a larger repertoire of semiotic resources.

4.3.1 Empirical research on multimodality and literacy in the Norwegian educational context

In the L1 Norwegian subject, in which multimodal texts have been explicitly present in the curriculum since 2006, there is a growing body of research on multimodality in education. Norwegian researchers primarily work within a social semiotic framework for multimodality. Early Norwegian examples of social semiotic recognition of modes can be found in the 1980s and 1990s in the field of media and Nordic studies (e.g. Ellingsen & Bonde, 1985; Tønnessen, 1992). In addition, in the field of metacognition and the curricular aim of learning to learn, attention has been paid to how different aspects of a text and its paratexts (e.g., headlines, glossary, images) can be used for reading strategies in all subjects, including English (e.g. Santa, 1996; Skjelbred & Aamotsbakken, 2010b); I consider these findings to be forerunners of multimodality.

One of the first major research contributions on multimodality in Norwegian schools came from Løvland, whose 2006 doctoral thesis on presentations in cross-curricular project work provided valuable insights and importantly introduced Norwegian terms for researching this area. Løvland concluded that most teachers are positive about working multimodally but found that written aspects of the multimodal texts tend to receive more attention and that there is a school culture that tends to overlook the meaning potential of other modes. Continuing her research on multimodal texts, Løvland has published articles and books that exemplify multimodal analyses and combine research with dissemination for education (Løvland, 2007, 2010a, 2010b, 2011, 2016).

Another early research project on multimodality and literacy in Norway conducted by Løvland and Tønnessen, among others, was the MULL project (Multimodalitet, lesing og læremiddel, “Multimodality, reading and teaching materials,” my translation). This project led to the publication of at least three books in Norwegian (Løvland, 2011; Tønnessen, 2010a; and Tønnessen & Vollan, 2010). Løvland shows that multimodal texts in themselves do not vouch for more or better learning. Rather, its classroom use and instruction and the texts’ qualities in themselves are catalysts for such benefits. She argues for the implementation of student activities and active construction of knowledge through a reading of the multimodal ensembles and transduction of modes (Løvland, 2011, p. 165). Next, Tønnessen’s edited volume contains research that spans from beginners learning to read to more advanced reading-to-learn stages in students’ development in school. In her introduction, Tønnessen emphasizes that what is new about digital texts is that multimodality as a means of expression is now available to a public that long has been accustomed to being positioned solely as consumers of multimodal expressions through media like film and television (Tønnessen, 2010b, p. 11). Finally, Tønnessen and Vollan (2010) explore multimodality during the first years of primary school. These cross-curricular studies, along with publications by Liestøl (2006); Liestøl et al. (2009), Skjelbred and Aamotsbakken (2010a), Sjøhelle (2011), Engebretsen (2010), and others, present theories and models for multimodal literacy practices that can help teachers understand multimodality, not just to fulfill the intentions of multimodal texts in the curriculum, but also to offer important perspectives on communication and education.

Looking at the interplay mainly between written words and images in static tourist texts in her doctoral thesis, Kvåle (2012) introduces the expression *image-verbiage complex*. She presents a thorough theoretical framework for analyzing and describing the complex whole created by intersemiotic relationships. What Kvåle offers may be too advanced a framework to integrate into primary and lower secondary education. Later research by Kvåle has been directed at digital software as a semiotic technology in teacher education (Kvåle, 2015, 2016; Tønnessen & Kvåle, 2016), showing how the affordances of the medium shape communication in important ways, not least for teachers.

Later doctoral studies into multimodality include Burgess's thesis (2016) on film as multimodal text production in year nine of L1 Norwegian. Employing an ethnographic approach, she finds that assessment is still a challenging issue with multimodal texts, as it was the end product (i.e., the film) that was assessed, not necessarily the storyboards and manuscripts that had been part of the process of design in the transduction from short story to film. She also makes some suggestions for how to improve conditions for working with multimodal texts in school. Time, she says, is a vital but scarce resource. Burgess furthermore suggests an explorative approach toward multimodality, in which neither teacher nor student is an expert on the genres or tools and their modal affordances, as one way of working with film. Students use their extramural (cf. Sundqvist & Sylvén, 2016) experience with multimodal texts and film tacitly, and Burgess suggests that a metalanguage is crucial. She mentions *modal affordance* as one term that might initially seem time-consuming and complicated to teach (and learn), but she argues that language is a prerequisite for all new insights and shared understandings. Burgess's findings are important for my study because they show that even after a decade of focus on multimodal texts in L1 education, there are still challenges to the implementation of a multimodal literacy practice.

Another Norwegian doctoral study of interest is Michelsen's ethnographic exploration of children's extramural literacy. She finds heterogeneous digital and multimodal literacy practices and a tendency for children to engage primarily in one of three dominant types of practices, based on their interests (Michelsen, 2016). Awareness of extramural literacy is important as a building block in the educational context, and Michelsen highlights how diverse children's digital literacy practices are.

Writing about subject didactics for L1 Norwegian teacher education, Kruse (2018) discusses the implementation of multimodal literacy in school. Through three interventions using picturebooks, whiteboard, paper, and tablets, she explores how teachers and students in primary school develop multimodal literacy. Her educational design study shows that it is possible to use multimodal text creation to stimulate literacy learning and metalanguage in the classroom. Together, the studies by Burgess,

Michelsen, and Kruse show that literacy practices are in flux, influenced by digital media and practices both inside and outside school, and that this is a complex but still productive landscape; I believe these findings are relevant for L2 practices.

4.3.2 Norwegian empirical research on L2 English and multimodality

In the field of L2 English education in Norway, multimodality has been addressed indirectly and directly. I begin this non-exhaustive overview with a look at empirical research that includes multimodality but has other important emphases. Multimodal perspectives are incorporated into literacy research by A. S. Bakken (Bakken, 2016, 2017, 2018, 2022), who investigated teachers' choice of texts for teaching English and found, among others, that film was used to accommodate mixed abilities and to increase motivation. Film in English teaching was also considered by Svenhard (2018), who regards film as a valuable means for metacognitive competence through visual reading strategies. She argues that an aesthetic teaching approach can make students more confident, independent, and active in English classes. Similar outcomes are found in research on the employment of picturebooks in primary school writing classes in English (Birketveit & Rimmereide, 2017).

The power of visual and multimodal texts and the way they can contribute to intercultural understanding and critical literacy are highlighted in recent Norwegian research on L2 English (Brown, 2021a; Heggernes, 2021c; Rimmereide, 2022). Brown (2021b), for example, introduces metalanguage from Kress and van Leeuwen (2006) in her intervention case study in upper secondary English teaching, to explain the *offer-demand* relationship between the viewer and the viewed in images. Working with analysis and redesign of advertisements, the students in Brown's study showed that this framework was especially helpful in enabling them to identify issues of power relationships. Heggernes's research on intercultural learning in the English subject includes picturebooks and graphic novels as reading material and prompts for dialogue and learning (Heggernes, 2019, 2021b). She points out how the interaction of pictures and words "provides both a cognitive and an aesthetic experience" (Heggernes, 2021a, p. 2) that can be used to develop students' ability to change perspective. Heggernes

emphasizes that teachers need to be aware of *affordances* in texts, particularly picturebooks, to draw on them in intercultural education. I see this combination of multimodal texts and other foci, here on critical literacy and intercultural competence in the English subject, as an expression of the recognition of the multimodal nature of texts and teaching material and the potential for teaching and learning.

Empirical research that addresses multimodality directly in the L2 English subject in Norway has shown a particular focus on tasks set in textbooks and exams (Ørevik, 2012, 2018; Skulstad, 2009, 2022). Skulstad's examination of tasks in textbooks shows that teachers and textbook authors must be aware of how tasks influence choices in text production. Prompts and assignments for students' creation of texts have an immense influence on students' choice of modes, and verbs and other wordings can constrain or encourage multimodality in the students' output (Skulstad, 2022). Doctoral research by Ørevik (2012, 2015, 2018) has focused primarily on genre and secondarily on multimodality in upper secondary school English.

More recently, Ørevik (2022) has conducted an action research project that sought to explore assessment of multimodal texts, here in the context of persuasive posters created by 16- and 17-year-olds in their English classes. Based on a model text and a preliminary assessment grid focusing on the relation between modes, coherence and clarity, intertextuality, and originality and creativity, the students made posters and gave one another feedback. Ørevik then revised the assessment grid and presents it in her chapter, thus providing both teachers and researchers with a concrete example to use as a point of departure for further development of assessment for multimodal literacy practices in L2 English.

I regard the efforts by Skulstad and Ørevik as important steps toward the implementation of multimodal practices in the English subject and beyond. By combining their research, Skulstad's and Ørevik's findings and examples can help teachers and teacher educators first design tasks that invite multimodal output and then create assessment criteria that

recognize the multimodal aspects of the student texts. Ørevik states that this is a work in progress and invites others to conduct further research on assessment.

4.4 International research on multimodality and literacy in L2 English

Research from L1 English contexts has been important for my research. These include seminal works such as *English in Urban Classrooms* by Kress et al. (2005), *Technology, Literacy and Learning* by Jewitt (2006), and several articles on multimodality in L1 English literacy practices by Bezemer and Kress (2009, 2010) and Jewitt (2003, 2011). All are cited in one or more of the articles in Part Two of this dissertation. I therefore turn to research on L2 English internationally, including some relevant Nordic studies in English.

4.4.1 Multimodal texts used to scaffold language learning

Some of the empirical research in L2 English focuses on multimodal texts as a means of attaining traditional learning goals. A great deal of empirical study has been devoted to how a multimodal approach to English teaching can positively affect and support the learning of new vocabulary (e.g. Boers et al., 2017; Gorjian et al., 2012; Mashhadi & Jamalifar, 2015; Vunghong et al., 2017; Zarei & Khazaie, 2011). Other research seeks to promote multimodal texts and genres that have (until recently) been uncommon in the ELT classroom, such as picturebooks and graphic novels (Birketveit, 2015; Burwitz-Melzer, 2013; Cook, 2017; Louie & Sierschynski, 2015; Rimmereide, 2022; Tørnby, 2020; Woolston, 2014). Bilingual ESL students in high school deepened their understanding of literature when their teacher used picturebooks and other multimodal texts (Early & Marshall, 2008). Furthermore, multimodal texts have been found to promote the joy of reading and immersion in fiction (Bland, 2015; Simpson & Walsh, 2015) and to offer visual support (Guo & Feng, 2015) and motivation (Darrington & Dousay, 2015; Jiang & Luk, 2016), even beyond the primary level (Lazar, 2015). Visual texts can assist in increased reading comprehension (Wolfe & Kleijwegt, 2012) in the face of declining reading skills among students (Thompson & McIlnay, 2019). These examples of research point out the enormous potential in multimodal texts as teaching

material for learning and motivation. Not all scholars, however, regard multimodal texts as a means of working with multimodal literacy.

4.4.2 Multimodal literacy in L2 English

Although it was not that long ago that Kress (2000) challenged TESOL teachers to begin to explore multimodality and Early and Marshall (2008, p. 379) found less focus on multimodality in ESL pedagogies than in L1 pedagogy, the situation is gradually improving. For teachers, multimodality in the design for teaching and seeing classroom interaction as multimodal ensembles can raise awareness (Kääntä, 2015). Using multimodal discourse analysis, Mestre-Mestre (2015) found that written and visual modes complemented each other in ESL students' oral communication, and that L2 students depend more on images "when they have to explain abstract, or complicated concepts" (p. 223). I read this as an indication that visuals can be of use beyond the one-to-one correspondence between word and object that is often found in teaching beginners.

When it comes to writing, more and more research has been published that looks at L2 English. Collaborative multimodal writing (Akoto, 2021) is undergoing further research with an eye on practical challenges as well as potential. Belcher (2017, p. 84) argues for a reconceptualization of L2 English writing as a multimodal design and highlights "learner-centric, autonomy-motivational, voice-enhancing, and audience-engaging" qualities (p. 84). Whereas much European research employs the notion of design to avoid using the words writing or text (and the concomitant values), it seems that composition is the preferred term in many Asian and American research communities. For me, the word composition brings to mind university classes on how to write literature essays, but it also evokes the musical metaphors of multimodal orchestration, ensembles, and compositions (section 3.3.3.). Looking at L2 English multimodal composing in an American setting, Shin et al. (2020) found that their informant used modes beyond the visual and linguistic, and even developed his metalanguage for multimodal composing. In addition to investigating composition, assessment is included

by Jiang et al. (2022) in an interesting study that uses the term “base units” instead of modes.

Another example of research on multimodality in L2 English is a volume edited by Diamantopoulou and Ørevik (2022) that covers a range of topics from different educational settings and levels. Apart from looking at overarching issues, the volume includes empirical research, such as digital storytelling with pre-service teachers to foster multimodal awareness (Normann, 2022). Other chapters have already been included elsewhere in this literature review. This volume again shows that the research field is flourishing, and it is easy to conclude that multimodality is something that strikes a chord with L2 educators.

Not all scholars, however, are enthusiastic about bringing multimodal literacy into language education: “for multimodal writing to be valuable for language learning, there must be a true demand for formulation, i.e. a struggle to transform ideas into language, a process propitious to language development because of the learning mechanisms it would activate,” states Manchón (2017, p. 95). This assertion expresses the value of linguistic mastery that is unquestionably central to all language learning. Similarly, in researching views among L2 English teachers in the United States, Yi and Choi found a “view of multimodal practice as less academic or rigorous” (2015, p. 844). One teacher they interviewed even stated that multimodal practices can function as a “crutch” (p. 844) that prevents students from attaining academic literacy. I think it is wise to be critical when considering the benefit of multimodality for English teaching and learning, though I do not share these apprehensions. I think a balanced approach is wise, and Yi and Choi indicate that there is “a critical gap between the theory of multimodal pedagogy and current [L2] teachers’ views of multimodal practices” (p. 845). Research from Korea, for example, showed that there is little or no difference when it comes to the content and language quality or the amount of reflection, when Cho and Kim (2021) compare traditional writing and digital multimodal composition. Xu (2021) even found that Chinese university students who took part in an experiment with multimodal composition improved their writing significantly.

5 Research design and methods

This chapter provides an overview of the research design used in this thesis and complements the methodological considerations and methods sections presented in the articles. It presents the design of the thesis as a whole, with the intention of showing how I have approached the overall research question of studying multimodality in the literacy practices of the English subject.

I begin with a discussion of the ontological and epistemological considerations that form the foundation for the research design in this dissertation. My research question entails a qualitative approach, and to explore several angles and include context, I chose case study as an appropriate methodology. Next, I take an overall look at case study as a research strategy and then move on to the three case studies that were the basis of the three articles in Part Two. I present the methods for each article from procedures for data collection to analysis, along with ethical considerations in each case. The chapter ends with a discussion of the research credibility of the study by considering its reliability and validity.

5.1 Methodological approach

Merriam (2009, p. 266) recommends making the underlying philosophical ideas behind research projects explicit to aid transparency. I thus outline my research design; I use Crotty's model (Figure 4) of the main elements of a research process (1998) because it illustrates the connection between the theoretical position and the choices of research questions, methodology, and methods. Instead of starting from the bottom, as Crotty does, I begin at the top with what I perceive as the foundation and to address researcher bias and discuss which epistemological and ontological assumptions form the basis for this dissertation.

Crotty does not include ontology (the study of being) in his figure and claims that "Ontological issues and epistemological issues tend to emerge together ... to talk of the construction of meaning is to talk of the construction of meaningful reality" (Crotty,

1998, p. 10). Yet, as I perceive my ontology, I think there is an observable reality, such as seeing pictures and writing on a screen. This reality is not objective, however, but shaped by context and the individual's understanding of the world. My ontological stance as a researcher (Crotty, 1998) can thus be characterized as social constructivist.

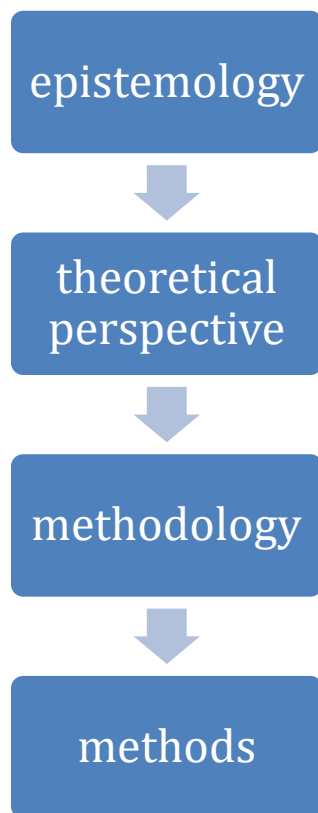


Figure 4: Model of the main elements of a research process, based on Crotty (1998, p. 4).

Epistemologically, the way I perceive the meaning of said words and pictures is constructed by my experiences in the world and as a participant in a certain culture (Bakhtin, 1987; Vygotsky, 1986). I view my epistemology as sociocultural, and sociocultural theory is an umbrella term for many branches of learning theories (Stray & Wittek, 2014, p. 134), based on the Vygotskian tradition that regards learning as situated and taking place using language, artifacts, and participation in social interaction (Vygotsky, 1978, 1986). While Vygotsky upholds language, the multimodal approach in this thesis emphasizes the potentially equal standing of modes (Bezemer & Kress, 2016, p. 15).

My social constructivist view leads to an epistemology that understands learning as something that happens both in interaction with other people and with texts, in socially shaped contexts; it characterizes me both in my role as a teacher trainer and in the position I take as a researcher in this study (Stray & Wittek, 2014; Vygotsky, 1986). Correspondingly, the theoretical frameworks I use for analysis are sociocultural studies of different literacies (Barton, 2007; Gee, 1989, 2015; Cazden et al., 1996). Methodologically, this project is situated in the qualitative domain, and case study as a research approach is accounted for in section 5.2.

5.1.1 Cognitive interest: Research purposes

My overall research question about the role multimodality plays in the literacy practices of the English subject can serve several purposes. I find it useful to consider the purpose of my research by asking whether I look for *explanation*, *understanding*, or *emancipation* with this thesis.²⁹ These three categories stem from the work of Jürgen Habermas (1974) and are a way of looking at the “overall human project of gaining understanding and knowledge in order to improve human life” (Benton & Craib, 2011, p. 114). The three corresponding *cognitive interests* Habermas delineates are the *technical*, the *practical*, and the *emancipatory* (Habermas, 1974, pp. 13-26).

The fact that I use empirical observations in Articles 1 and 2 could point in the direction of a quest for law-like explanations of the phenomenon of multimodality in English education. This is what Habermas (1974, p. 19) calls *technical* interest and is an instrumental and positivist approach. It is conceivable that there is an element of instrumentality in my research, insofar as teaching material (Article 2) and examinations (Article 3) can be assessed as more or less taking into account the affordances and interplay of modes in a text. My analytical methods also include looking for recurring patterns in literacy events in order to understand literacy practice when it comes to attention to the interaction between modes. Certain “rules,” such as the left-to-right direction of reading in Western culture and the implied importance that elements are given by the sequence in which they appear in layout and organization, are certainly identifiable and useful tools for working with visual and verbal texts. Nevertheless, these conventions are based on cultural rather than universal truths (Kress & van Leeuwen, 2006) and as such do not satisfy the requirement of testability that most positivists demand. As a result, my research has some technical interest; indeed, for Habermas, technical interest is a useful and even necessary foundational part of science.

²⁹ Parts of this text (from this point until the end of the current section) were submitted as my summative examination for the Ph.D. course Philosophy of Science in December 2014.

In aiming to understand, I have looked for practices rather than causes. As stated, multimodal analysis has its roots in the theory of social semiotics, where meaning is created in the dialogue between people and in relation to social practice (Halliday, 1978, p. 135; Maagerø & Tønnessen, 2010). An analysis with emphasis on context and culture points toward an epistemology that eludes prediction and excludes looking at the world as full of clockwork mechanisms that can be causally explained. This leads from technical interest to the second Habermasian category of cognitive interests: practical interest. Communication with others opens up cooperation, which “gives rise to the hermeneutic sciences, the sciences of understanding” (Benton & Craib, 2011, p. 115). The analysis of interplay between modes as parts of a larger text is like a hermeneutical spiral between parts and whole, in which the interpretation of one mode affects the interpretation of the other and their synthesis (Gallagher, 1992, pp. 58-62). The primary aim of this dissertation is to explore and thereby understand the role of multimodality (part) in the literacy practices (whole) of English as a school subject in Norway.

Finally, there is emancipatory interest, which involves a process of “understanding ourselves and our ways of thinking about the world which provides us with the possibility of autonomy” (Benton & Craib, 2011, p. 115). I see emancipatory interest as closely tied to the category of practical interest, in which understanding has such a central place, because the emancipatory interest’s autonomy and liberation presuppose understanding. What makes my project touch upon emancipation is its focus on literacy. Freire’s research (1993 [1968]) on literacy has shown how access to education and literacy is essential for democratic societies, even though literacy alone is no guarantee of either democratic thinking or emancipation. One of the goals of the NLS focus on literacy education and multiliteracies is to create access to the literacy practices that characterize contemporary society (Siegel, 2006). We live in a world where digital media has made multimodality essential. Active members of society must understand multimodal texts and be able to express themselves within that discourse (Cazden et al., 1996). In this, education and the English school subject can play a significant role. However, the main goal of my research is to understand and form a foundation from which emancipation may arise.

5.2 Case study as a research strategy

In my efforts to understand the role of multimodality in the literacy practices of the English school subject, I have chosen qualitative case studies as my research approach. The use of case study has grown steadily in research on English language arts education and literacy (Birnbaum et al., 2005). Its background is in psychology, anthropology, sociology, law, and medicine (Creswell, 2013, p. 104; Merriam, 2009, p. 39). One of the main merits of and reasons for using case study research for my purpose is its provision of a situational or contextual understanding of the research subject (Eilertsen, 2013, p. 173; Flyvbjerg, 2006, p. 235). Considering that the wider context is essential in social semiotic multimodal analysis, a case study approach is suitable for looking at literacy practices through events and texts. Scientific research cases require theoretical grounding, systematic documentation of data, and analysis; they ultimately aim to contribute to research development.

In terms of scope, a case study “investigates a contemporary phenomenon (the ‘case’) in depth and within its real-world context” (Yin, 2014, p. 16). The phenomenon I investigate in this thesis is multimodality in the literacy practices of the English school subject. This dissertation comprises three single cases (Yin, 2014, p. 51) that together lay the foundation for an overall discussion of multimodal texts and literacy in English education in Norway. I chose to conduct single case studies to investigate different contexts and thereby increase the validity of my research as a whole (see section 5.8.2). I did consider a multiple-case study at the beginning of the project and visited two schools for data collection before writing Article 2. However, replication was not what I sought in my qualitative design. Moreover, the fact that contexts vary from one school to another, made multiple-case studies less appropriate. In Article 3, five exams are explored, but I consider them instances of the same kind of literacy event that make up what Yin (2012, p. 46) calls an embedded single case with multiple units of analysis. With an exploratory starting point in which I sought to understand multimodality in the field of English education, three single case studies became my ultimate choice.

Another reason for choosing case study as a research strategy is that it allows for a variety of methods of data collection and analysis. Creswell's comprehensive definition of case study illustrates the variation in methods:

Case study research is a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, audiovisual material, and documents and reports), and reports a case description and case-based themes. (Creswell, 2013, p. 97)

In the present dissertation, each of the three articles is based on different contexts and data material to investigate multimodality and literacy in English education from several perspectives. The process of collecting data for Articles 1 and 2 was based on the use of multiple data sources, as is typical in case studies (Creswell, 2013, p. 105). Collection for Article 3 involved one type of data collected over an extended period.

I now proceed to outline the context, methods, and materials of each of the three studies in this dissertation (Table 1).

Table 1: Detailed overview of the case studies in the articles.

	Article 1	Article 2	Article 3
Context	Teacher education	10th grade classroom	10th grade school-leaving exams
Sample	A class of pre-service teacher students creating a wiki	One class and teacher working with a novel	Exams from the years 2014 to 2018
Data collection	Photos Wiki history Handouts Student videos	Fieldnotes Videos Student texts Interviews Handouts	Preparation websites Exams Guidelines Reports
Bounded system	One class One topic	One class One topic /teaching unit	Five years (2014–2018)

The three cases cover widely dissimilar contexts that range from teacher education to the school classroom context and to exams at the national level. By choosing these diverse settings, I obtained a wide perspective on my subject of interest. In teacher education, events and texts form the basis for theorizing about the present and future

practices of English teaching. Observations in the 10th grade school classroom allowed the investigation of literacy events at the end of compulsory English education. They provided literacy events that were based on a richly illustrated and thus multimodal literary text that could shed light on the literacy practices connected to reading a novel. Finally, the nationwide exams indicate the literacy events connected to assessment at the conclusion of compulsory English education and thus indicate the outcome of the larger literacy practice of the subject at this important milestone of education. Collectively, these cases can provide information on the literacy practices of 10th grade English education specifically and English education in Norway more generally.

5.3 Case 1: Theoretical reflections on practice with wikis

In Article 1, the context was teacher training, and a colleague and I used our teaching for a discussion of the future of English subject didactics in relation to technology, literacy, and texts. The English students were third-year student teachers in the 1–7 program. Twelve hours of actual teaching and associated preparations and follow-up work formed the data sources. Multimodality is one of the prominent features that emerged from the combination of digital technology, literacy, and text. We sought to explore how both traditional, well-established genres of text in the English school subject and newer genres can be attended to using digital technology. Our case study can be characterized as *instrumental*; an instrumental case “is examined mainly to provide insight into an issue or to redraw a generalization. The case is of secondary interest, it plays a supportive role, and it facilitates our understanding of something else” (Stake, 2005, p. 437, as cited by Merriam (2009, p. 48). Our experiences with a wiki storyline teaching unit for student teachers served as an example to discuss and from which to theorize. We used empirical material that was the product of regular teaching. Data were constructed retrospectively, as the question appeared after the classes had taken place.

Empirical data served as a basis for reflection and discussion of digital texts and the teaching of English and thus what expertise future English teachers may consequently need. Data consisted of the planning and lecture notes we made as university teachers, photos used in class, and photos of the blackboard notes. We also gathered the documents produced during the teaching process (Figure 5); that is, the written texts produced by the student teachers and the teacher-researchers on collaborative pads and in the wiki framework, and finally, in the pre-service teacher students' multimodal video presentations of their learning process.



Figure 5: Overview of the main stages of the wiki teaching design.

This study entails a different researcher position than the other two studies in this thesis. In this instance, my colleague and I were insiders looking at our own practice and trying to see it within a larger theoretical framework. We taught as a pair and met to confer both before and after classes. We were both present and active during classes, which means our observations were part of regular pedagogical activities (Bjørndal, 2017, p. 33). We were both participants and retrospective observers of the practice, or what has been called “complete participants” (Creswell, 2013, p. 166; Merriam, 2009, p. 125). This has the advantage that we knew the field well: the teacher-training program, the institutional practices, and this particular group of students. Likewise, wiki technology and collaborative writing were something we both—my colleague in particular—had experience with and wanted to explore further. Simultaneously, we faced the disadvantage of being immersed in the context and may have been unaware of aspects an outsider would notice. Being two researchers, however, helped us see the larger

picture and grasp the outsider's perspective to a certain degree. In the two next contexts, I had a pre-defined role as a researcher and held an outsider view of practices in which I was not a usual member. I now turn to the first of these contexts.

5.4 Case 2: Literacy events in the English classroom

Aiming to shed light on the overall question of the role of multimodality in the literacy practices of the English subject, Article 2 considers the context of Norwegian compulsory school; more specifically, the final year of lower secondary school. I expected that the use of songs, flashcards, and one-to-one elaborating multimodal ensembles, which are common in beginners' English lessons (Maagerø & Simonsen, 2006), must be different in a classroom with older students, in which more abstract ideas, culture, and literature are taught. By choosing the grade 10 context, my aspiration was to research and understand multimodality in the literacy practices at the very end of compulsory education.

I wanted to employ an open, exploratory approach (Merriam, 2009, p. 44). For this purpose, I employed fieldwork; terms like fieldwork and field study “usually connote both activities (observations and informal interviews) and may also include the study of documents and artifacts” (Merriam, 2009, p. 117), all of which are used in my case. Fieldwork and the associated methods are shared between case studies and ethnographic research, and an ethnographic approach has recently been characterized as “increasingly relevant as a means of obtaining information about multimodality, and particularly about multimodal practices” (Bateman et al., 2017, p. 144). Case study fieldwork, however, is often shorter in duration than ethnographic fieldwork, and data collection is bound in time (Postholm, 2005, p. 52). By observing, filming, interviewing, and collecting the texts central to literacy events in a classroom (Barton & Hamilton, 2000), it is possible to describe and subsequently understand the multimodal literacy practices of that classroom (Dicks et al., 2011). Fieldwork as an approach was relatively new to me, so I decided to undertake a pilot study to prepare.

5.4.1 The pilot study phase

The pilot study was designed to find out whether observation and teacher interviews would produce data that could be used to respond to my research question and to see whether I was asking the right interview questions. One reason behind my choice of approach was that I would be researching a phenomenon that is not embedded in the English subject curriculum (Norwegian Directorate for Education and Training, 2013). Only the extended notion of text was a part of the English subject curriculum, not the term *sammensatte tekster* (see section 2.2.4). I was therefore concerned that the lack of a common language and understanding of multimodal texts and multimodal literacy might render my research task difficult. I decided that data collection methods that depended on a shared language, such as surveys, were not feasible. Interviews would likewise be challenging, but I decided that semi-structured interviews with teachers could be one way to overcome the lack of common language.

In order to test observations and interviews as methods for data collection, I contacted an experienced lower-secondary English teacher keen with an interest in research on English didactics in one of the practice schools. I knew her from my days of English studies and later from student practice meetings in my work in teacher education. The teacher allowed me to visit one of her groups during a lesson. I used an observation form with columns for organized notations of classroom activities, materials, and spontaneous thoughts such as questions, ideas, and interpretations: “Observation is a research tool when it is systematic, when it addresses a specific research question, and when it is subject to the checks and balances in producing trustworthy results” (Merriam, 2009, p. 118). The observation table helped me record and log observations systematically, while also leaving space to note unexpected matters. Subsequently, I conducted interviews with her and a second English teacher at the same school.

5.4.2 Adjustments of the methods for data collection

The pilot study allowed me to refresh my observation skills and assess the observation form and interview questions. I gained an idea of how I could best collect data for my investigation of multimodality in the English classroom and how teachers talk about

multimodality. Both of the teachers in the pilot study referred consistently to the curriculum when I tried to ask them about multimodality, and my expectation was confirmed: that a common language about multimodality was lacking. Accordingly, I kept the observation form unchanged but adjusted some of the questions for the teachers (Appendix 5). I also decided to be more transparent with the main-study teachers about my multimodal research focus.

After the pilot study, I also decided to expand my data collection to include video and student interviews. Direct observations and field notes have the advantage of documenting direct experiences and enable the possibility for making thick descriptions (Geertz, 1973). As a non-participant observer (Creswell, 2013, p. 167), the researcher can focus on the interaction between people and what takes place and even note down some here-and-now interpretations. A weakness of this method is that the participants, both students and teacher, can be influenced simply by being observed. Another possible weakness is that the researcher carries certain expectations and biases and needs to be aware of them to find a balance between using a certain lens for observation and capturing the details of the classroom action.

The idea therefore emerged of using video recordings; inspired by the methods of Blikstad-Balas (2012), I decided to use head-mounted cameras. The aim was principally to gain the student perspective and thus be able to look at multimodality in the classroom from several points of view. Head cameras can capture close-up views of the learning material that students use (Heath et al., 2010, p. 54) and also indicate the direction of the gaze of the person wearing the camera. Both of these kinds of data could say something about what interests a given student (Kress, 2003). Following up on the video recording with semi-structured interviews could further promote the student perspective. Another advantage of video is that it captures transitory actions. I also wanted to challenge myself as a researcher to use modes other than speaking and writing and to collect multimodal data that could shed more light on the research question (Kendrick, 2015; Seidel & Janík, 2009). In addition to two head cameras worn by students, I used one fixed camera that captured the classroom.

5.4.3 Data collection in two schools

After the pilot study, I proceeded to do fieldwork in two other lower secondary schools. Only the data collected in the second school were used in Article 2. The process of data construction was the same, and my observations shaped my horizon of understanding (Simon & Campano, 2015), so I account for both here. Access to the field was gained through my university department and previous contacts. First, an experienced teacher agreed to let me collect data in her 10th grade class, and I observed 10 English lessons over a period of 10 weeks. During the first lesson, I informed the students about the study (see Appendix 1) and observed the rest of the lesson while making handwritten notes on the observation form. All the students and their parents gave *free and informed consent* to participation (NESH, 2006, pp. 13-14), and, I made certain the study was registered and approved by the Norwegian Centre for Research Data (NSD) (Appendix 2). The remaining lessons were filmed with two head cameras and one full-class camera. I made handwritten notes during my observations, collected classroom texts, and ended the observation periods with semi-structured interviews with the teacher (see Appendix 5) and the students who had worn cameras (see below for more detail about the interviews).

Handling and filing the fieldwork became an important part of the data collection process. I saved and labeled all the three camera recordings after each session, using an external, encrypted hard disk. During the filing process, I watched to check that the angles of the cameras were suitable and to assess the quality of the recordings. I systematically filed by date the observation forms, the handouts, and artifacts from the classroom. I wrote a researcher log to ensure that I could capture my immediate impressions after my observations and after watching the video material and note ideas and questions. There were considerable amounts of data. In hindsight, I see that I succumbed to what Cartwright (2013, p. 67) calls the “temptation to shoot too much.” Using the data-handling program NVivo, I coded the video recordings; based on the first coarse-grained coding, I chose still shots of the action to use as prompts for the pairs of students who were interviewed.

Making use of the same approach, I then proceeded to collect data from another 10th grade classroom in a different school. During a period of four weeks, I collected the material that was eventually used as empirical data for the analysis presented in Article 2. As in the first school, two students were randomly chosen from among volunteers in the class to wear the head cameras during each lesson. The same observation form used in the pilot study guided my attention during my presence in the classroom, complemented by two head-mounted cameras and one fixed camera that captured the whole classroom. The collected data material comprised observation notes from lessons, video recordings showing three lessons, 11 student texts, classroom handouts, and the novel *The Absolutely True Diary of a Part-Time Indian* (Alexie, 2007), on which the lessons were centered, and student and teacher interviews.

Semi-structured interviews with the teacher and three pairs of students were conducted at the end of each of the observation periods. Semi-structured interviews are particularly suitable for the study of everyday phenomena; in this case, literacy events in the classroom. Open-ended questions give direction to the interviewee while maintaining the liberty to follow up on what the informants say (Bjørndal, 2017; Kvale, 2008). I chose this approach to obtain more in-depth, complementary knowledge about the participants' views of the literacy events. Learning is not directly observable, and a researcher must draw conclusions about how learning takes place based on observations of what people do or say (Säljö, 2016, p. 33). The interviews were audio-recorded and conducted in Norwegian to ensure that the power relationship was not too heavily on the researcher's side (Sollid, 2013, p. 136). By interviewing students in pairs and using the students' L1, I aspired to make the affective filter as low as possible and to create an informal setting (Appendix 3). In addition, the interviewees could interact, stimulate each other, and discuss, which may have led to their rendering responses that had greater depth. Each student interview lasted between 15 and 20 minutes, and the teacher interview lasted an hour.

All the interviews with the students included a visual prompt (Appendix 4). I used the video material to select still photos that showed the most prominent activity captured

(Blikstad-Balas, 2012). These showed the activity from the perspective of the head cameras, and I asked the students to describe the activity in the photo. In this manner, I aimed to elicit responses that could reveal more of the students' points of view concerning multimodal literacy. I wished to learn more about issues such as what and how the students had learned and how they experienced the interactions, texts, and modes of the lesson. In some interviews, the students answered the photo-prompted question very briefly, as if it were too easy. I would then elude more by asking, "Can you describe the photo and classroom activity as if I could not see?" Other students were surprised by what the photo showed, saying that the still photos portrayed them and their classmates as working harder than they remembered. I interpret this as time passing quickly for the students during concentration-intensive work such as silent reading and writing. I think the photos worked well to stimulate a meta-perspective. On the other hand, the photo prompts could also have influenced the students and redirected their attention to and perceptions of what had taken place in class. Semi-structured interviews are common in qualitative research such as case studies (Creswell, 2013, p. 163), and can give access to some of the thoughts, perspectives, and experiences that observations and video recordings cannot. Possible weaknesses of this method include the risk of asking leading questions and an asymmetrical power relationship between interviewee and researcher. Using open-ended questions and *active listening* (Bjørndal, 2017, p. 111), I aimed to minimize these stumbling blocks with both the students and the teacher.

I audio-recorded the student and teacher interviews and transcribed them in their entirety shortly after they were completed. The interviews were conducted in Norwegian, the participants' mother tongue, to let the participant speak as freely as possible. I translated the interviews; transcribing them first in Norwegian and then translating them into English meant that I interpreted them in two cycles. When quoting from the interviews in the article, I used the English versions, after checking that the translation was as precise and direct as possible.

I had anticipated that the students would perceive the cameras as intrusive and that it would take time to get used to them, as Postholm (2005, p. 65) indicates. But the students

in both the first and the second schools paid little attention to the cameras after some initial glances and jokes (Heath et al., 2010, pp. 48-49). Likewise, they paid me scant attention as an observer. I took the role of nonparticipant observer, of “an outsider of the group under study, watching and taking field notes from a distance. He or she can record data without direct involvement with activity or people” (Creswell, 2013, p. 167). When setting up the cameras, I communicated with the students but otherwise remained an observer, what Postholm (2005, p. 65) calls “a fly on the wall.” When I interviewed the students, however, it seemed like my being in the classroom had made it easier for them to feel comfortable in the interview situation, and I could see clearly that my presence had not gone unnoticed—even a fly on the wall is noticed.

The texts that the students wrote at the end of the series of lessons in the second school were collected and analyzed; they were valuable as signs of what the students thought were important aspects and of how they chose to express themselves. The texts were written for assessment as part of regular English lessons and not specifically for this research project. In this sense, the students wrote to show the teacher what they had learned and the texts can be considered “regular,” or representative, though of course texts and the people writing them may inevitably be influenced by a researcher’s presence, at least to some degree. A possible consequence is that some students may have put more effort into their work, knowing there would be an additional reader. The documents the teacher handed out in class were also collected but mainly used as supplementary data.

5.5 Case 3: Multimodal analysis of examinations

My research on the national school-leaving exams in English in Article 3 was motivated by the fact that this perspective nicely complemented the classroom as a research setting. Classrooms form complex social arenas with texts and interactions on many levels and time scales. Examinations, by contrast, are tangible and stable. It is of interest to see how exams express an understanding of the English subject curriculum. Moreover, the national vantage point gives more weight to claims about transferability about multimodality in the subject (discussed in section 5.8.3). The final exam is a milestone

and completes the course in English in Norwegian compulsory schooling. All students in Norway have a right to attend upper secondary schooling, and a vast majority (92.8%) of all 16- to 18-year-olds are currently school students, apprentices, or trainees in upper secondary education, in which they continue with English (Statistics Norway, 2019b). For most Norwegian youths, the 10th grade focus that was chosen is thus not the end of English education, but it is the final English education course that every Norwegian student attends. By researching the role that multimodality plays in summative assessment, I was also able to look more closely at the literacy practice in the English subject in Norway, which the exams reflect.

The exams are bounded in time, and I chose a sample from the point at which the curriculum reform took effect from the fall of 2013 to the latest exam at the time of analysis and writing up (2018). With five years of exams, the data were abundant, consisting of approximately 250 pages. Each exam has preparation material that comprises 8–11 texts of varying lengths that encompass at least 45 A4-sized pages of text in a given year. In addition, there are the exam tasks booklets with questions including an “unknown text” for each of the five years. Guidelines also need to be added to the list, though they are quite similar from one year to another. I chose to regard these five exams as one overall unit of analysis (and thus an embedded case) for my study.

All the Norwegian national exams for grade 10 are available online, though they are password-protected, and only the three most recent years remain online after the examination period. When I first started exploring the English exams in 2014, I logged on to study the texts, and to undertake more systematic analyses I tried to print out paper versions of the texts. I found, however, that the full website layout could not be transferred to the medium of paper. Online and print pages are different, as is collecting them. Saving the preparation material’s web pages without losing out on interactivity and hyperlinks posed a potential problem for multimodal analysis. Initially, I used the print icon on the digital page and soon found, as is common with many web pages, that the continuity of the scrollable web page was broken up on paper. In addition to losing the dynamics of the scrollable page, the set menu fixed on the left side of the screen

does not appear on the printed page. Students would face this same scenario should their school be without the capacity to provide computers to students. For my analyses, I typically returned to the active web pages³⁰ of the preparation material as they (unlike most other webpages) remain static for three years.

5.6 Data analysis

It is a common element in all three articles in this dissertation that multimodality operates in a double role as an object of study and analytical approach. Inspired by hermeneutics, my analysis of multimodality in texts and context moves in a constant cycle between part and whole. This meta-principle of the hermeneutic circle or spiral (O'Toole, 2015, p. 84) is also visible in the cogwheel model presented in Article 2. Theory, in the shape of multimodal lenses, has guided my analysis, but what I observed has also influenced my use of theory, as some approaches to multimodality proved more relevant to the analysis of my data than others. The process of analysis is thoroughly described in each article, but I will provide a summary and comparison here for clarity.

In Article 1, in which the starting point was the issue of what competence English teachers will need in the future, the analytical and theoretical lens is on the three distinctive features that separate paper-based from digital texts, as pointed out by Schwebs (2006): *multimodal*, *hypertextual*, and *processual* qualities. Looking at these features, Article 1 theorizes that literacy for future teachers needs to include the aspect of how digital media affect the production of texts. Wiki technology embraces all these distinct features of digital texts, making them highly visible and accessible. By building on Bakhtin's idea of dialogic interaction (Bakhtin, 1987), we interpreted the wiki as being able to comprise a variety of text forms within a shared framework that overrides traditional textual hierarchies of English teaching.

Working with the data for Article 2, which involves the role of multimodality in the literacy practices of the 10th grade classroom, the analysis was a repeated, continuous,

³⁰ In order to retain a digital version, I also saved the webpages using the web browser Firefox's tool for this purpose and kept them as backup versions; these files were later corrupted by a software update.

and dynamic process. Interpretation started when I entered the research field with the pilot study and continued during the transcription and coding of the data obtained in the pilot study. These experiences guided the research process regarding the new fieldwork and data handling. Finally, the fieldwork data from the second school were chosen for close analysis and discussion in Article 2. One reason behind this choice was that the data better met the criterion of a *bounded system*: “a single entity, a unit around which there are boundaries” (Merriam, 2009, p. 40). The bounded system was clearly delimited by being in a single classroom, as was also the case in the pilot study and in the first classroom which I had observed. More importantly, in this classroom, my observation period coincided with a teaching unit of four weeks. I found that this delimited unit of study made the analysis more focused, as all the literacy events were centered around one topic and main text.

The analysis continued in an *abductive* fashion between theory and the data (Svennevig, 2001) in discussions with my cowriter; it did not end until the article was finished. Inductively, the data material steered the analysis, and the theoretical apparatus needed to understand and interpret data. For instance, the video material, which was intended to be a central part of the data, was instead used as supporting data that could expand the observation notes. Theory about literacy events and literacy practices including multimodal texts shaped the analytical focus in a deductive way.

Multimodal video analysis is often carried out on short sequences that are broken down into second-by-second analysis of each of the several modes and their interactions (Bezemer & Mavers, 2011; Cowan, 2014). In our case, we chose to look at the entire four-week unity of study, making the videotapes less central. The design-oriented perspective (Kress & Selander, 2012; Selander & Kress, 2010) made us aware that the multimodal practices in this English classroom were not the same from the teacher’s and students’ points of view. We decided to dive deeply into the texts the students had

produced because they showed signs of learning that were more accessible than those from the video material (Jakobsen & Tønnesen, 2020).³¹

Finally, Article 3 aimed to explore multimodal aspects of the final exams in English, so the article contains a close and detailed textual investigation that employs multimodal tools. The analysis begins with a multimodal description of different parts of the English exam, with attention paid to which modes are used with different types of texts. Furthermore, the article analyzes the interplay between different modes and how meaning is made through different types of multimodal cohesion, such as elaboration and extension (van Leeuwen, 2005). Next, the implications of the textual analysis are tied to the context, the tasks given, and a discussion of what this indicated concerning the literacy practices of the English school subject.

The analytical process again shifted between exploring the empirical data and using the analytical multimodal framework to understand the concepts and see the data in that particular light. The process of analysis thus combined the inductive and deductive, hermeneutically spiraling between part and whole (Solberg, 2000; Wernet, 2014) and abductively between theory and data (Svennevig, 2001). The empirical data provided an understanding of the role of multimodality in the English exams, particularly the roles of image and layout in interplay with printed text, and the theoretical framework of multimodality helped me make sense of the data.

5.7 Data selection and choices

One of the lessons learned throughout this doctoral work is that abundant data material can be both positive and negative. For one, I chose three very different contexts for my investigation, and while this triangulation may lend strength to the validity of my findings, it also means that I may have missed out on the possibility to go more deeply

³¹ We wrote more in depth about the analytical process in a chapter published in *Data Analysis, Interpretation, and Theory in Literacy Studies: A How-To Guide* (Knobel, Kalman, & Lankshear, 2020).

into detail in a single context. With my broad scope, choices had to be made in the analytical process.

Each case study involves a great deal of data, some of which had to be deselected. As mentioned, many studies that employ multimodal analysis investigate a limited amount of data in very close detail, such as short sequences of interaction, or a smaller number of texts or web pages. By choosing to look at relatively sizeable sets of data, I obtained a good general overview, but I also had to make choices on what data to select for closer analysis. Making the choice not to include all the rich material collected in one of the classrooms was certainly taxing, but it was also edifying. I initially felt an obligation to use the data collected from a class and teacher who had generously opened their classroom to my research. Even if that material was not analyzed, however, I still carry the observations and reflections made about the literacy events in that classroom. They become part of my “horizon of understanding,” to use the language of hermeneutics. I could not “unsee” the rich multimodal events featuring “quick posters,” student presentations that included videos from YouTube, visualizations made by both the students and the teacher, music videos every Friday, and films, to name a few.

Other choices include how finely grained my analysis would be and which parts of the data to focus on to be able to answer the research questions. In all three case studies presented here, this choice was made through a combination of locating the general tendencies in the data material and taking a closer look at features that were conspicuously different. The exceptions could say something about the customary by the way they challenged the conventional. One such example is the attention given to the multimodal text produced by Julie in Article 2.

In hindsight, I think I would have chosen a narrower context and research question were I to go back and change my research design. That said, I still think the broad exploratory approach was a necessary one when I entered this little researched field. It is because of what I have learned and now know that I can envision more limited questions and see how a stricter scope could produce further insights.

5.8 Research credibility

One of the aims of giving detailed descriptions of the research process, choices, strategies, methods, and analyses is to ensure a transparency that allows for research credibility. Validity and reliability are the two main criteria for research quality (Creswell, 2013; Silverman, 2011).

5.8.1 Reliability

In qualitative research, reliability is less about replication and more about transparency about the research process by leaving what can be called an audit trail, “which describes in detail how data were collected, how categories were derived, and how decisions were made throughout the inquiry” (Merriam, 2009, p. 223). When it comes to data, the material for Article 1 was collected retrospectively. While this can be criticized as less than completely scientific, it may conversely be argued that retrospective collection may improve credibility—even of the data used—as neither the teaching plan nor the students could have been influenced to obtain a certain result, and the data were the product of regular teaching. Data collection for Articles 2 and 3 was more traditional in the sense that it was prepared fieldwork for Article 2 and the collection of digital documents for Article 3. These processes have been thoroughly described in this chapter.

In this dissertation, I aspire to be transparent about the research design and process. In semiotics, the researcher’s interpretations will inevitably be colored by his or her experience and theoretical background. Low and Pandya (2019) argue in favor of including intuition in research, saying that “there is simply no way to take the researcher out of the research, nor should it be an ideal for which to strive” (p. 3). The researcher operating as a “research instrument” (Merriam, 2009, p. 52; Postholm, 2005, p. 35) does not necessarily undermine reliability or validity, if the researcher combines that role with reflexivity and transparency: “We advise literacy researchers to reflect throughout the research process on how our interpretive lenses, values and identities are interwoven as we examine multimodal artifacts” (Low & Pandya, 2019, p. 16). Foregrounding the researcher’s position in multimodal analysis is one of the strategies they suggest for

strengthening credibility. Another way to uphold reliability is through the use of low-inference descriptors, which I understand as letting the informants' voices and empirical data be recorded and later heard in the published research (Silverman, 2011, pp. 360-361). In all three articles, the aim has been to use examples and to allow the voices of the participants to be heard.

When it comes to observations, the researcher must distinguish clearly between field notes that capture the words and concepts of those being studied (emic analysis) and the researcher's own concepts, which is known as etic analysis (Merriam, 2009, p. 29; Silverman, 2011, p. 362). As mentioned, one challenge in my research project is the lack of a common language to talk about multimodality. For Article 2 about multimodality in the classroom, I found that using an observation form that distinguished between descriptions and my interpretations as a researcher made it easier to keep the emic and the etic separate. Furthermore, writing and researching together with others has also improved reliability, as I could discuss data and compare analysis with another researcher. During the analyses and writing up of Article 3, I aimed to be transparent about analytical categories and how I reached my conclusions.

5.8.2 Validity

Validity in qualitative studies concerns questions of the degree to which a study explores what it is supposed to explore. Yin recommends "identifying the correct operational measures for the concept being studied" (Yin, 2014, p. 46) to test *construct validity*. This dissertation does that by defining central terms (chapter 3), and by using well-established analytical tools, such as van Leeuwen's framework of information linking (see Article 3). Another step toward ensuring construct validity is data triangulation (Yin, 2014, pp. 119-121).

Triangulation is a validation strategy often used in both ethnography and case studies (Merriam, 2009; Yin, 2014). Yin describes two main approaches to data triangulation. One is to assemble different kinds of data to come to an overall conclusion. Another is to collect or construct the same kind of data from different contexts and then assemble

the conclusions. I have used the first approach in each of the three cases. Multiple sources of evidence serve as data to form as broad and deep an understanding of each case as possible and to enable the convergence of evidence. I also use triangulation of research sites by having carried out three case studies in three different contexts, and this dissertation brings them together.

Silverman (2011, pp. 369-371) warns that triangulation of data does not guarantee validity and quotes Hammersley and Atkinson: “One should not adopt a naively ‘optimistic’ view that the aggregation of data from different sources will unproblematically add up to produce a more complete picture” (1995, p. 199, as cited in Silverman, 2011, p. 370). I understand Silverman as reasoning that triangulation is of value to add complexity to understanding rather than expect to arrive at a mathematically precise answer. In this dissertation as a whole, the three different vantage points from which each article investigates multimodality were chosen to provide a broad foundation for exploring the phenomenon of multimodality and its place in English teaching and learning. This is in line with my research goal of gaining an understanding of what Habermas calls practical interest.

Yet another way of strengthening the validity of this study has been to present preliminary findings in masterclasses with scholars and to my peers in the research school I attended. This process, known as *peer debriefing*, includes “questions about the qualitative study so that the account will resonate with people other than the researcher” (Creswell, 2014, p. 202). Spending prolonged time in the field is also an approach that Creswell recommends (Creswell, 2014, p. 202) and that resonates with my experience with Article 2: first doing a pilot study and then conducting fieldwork in two schools, even though only the second observation period provided the material data for Article 2. Spending extended time in the field makes for a better understanding of the context.

Clarifying researcher bias is also important for validation: “the researcher comments on past experiences, biases, prejudices, and orientations that have likely shaped the interpretation and approach of the study” (Creswell, 2013, p. 251). My experiences as

an English teacher and formerly an English student are an important part of what determines my position as a researcher in this project. In the introductory chapter above, I have described my literacy and research background.

5.8.3 External validity

All cases share the prospect of developing general knowledge or understanding based on the specific (i.e., the case), according to Eilertsen (2013, pp. 174-175). This view concurs with the idea of practical interest (Habermas, 1974) that I introduced in section 5.1.1. Furthermore, it accords with the NLS viewpoint that “in order to understand literacy it is important to examine particular events where reading and writing are used” (Barton, 2007, p. 36).

Transferability or *external validity* in a case study is based on *analytic generalization* (Yin, 2014, p. 21) rather than causal explanations. Case methodology, especially when a single case is involved, has been criticized as not providing the foundation for transferability, with the need for multiple replications proposed. For this dissertation, this logic would entail that the local practices that form the data in Articles 1 and 2 offer findings that may not correspond to practices elsewhere. The demand for replication, however, has been refuted by Flyvbjerg (2006) as a misunderstanding, a view that is supported by Silverman:

It is a mistake to assume that the further we move away from a specific case, the more valid is our knowledge. Such a view overlooks a key advantage of qualitative research—its ability to give us insight into local practices. (Silverman, 2011, p. 386)

Silverman suggests that *purposive sampling* can be a positive step in the direction of accommodating generalizability (p. 388). In my design, I have aimed to look for representative contexts. Merriam (2009) advises that it is common to leave it up to the reader to ultimately “decide whether the findings can apply to his or her situation” (p. 226), which will obviously depend on each reader’s context and interest. Through the studies undertaken in this dissertation, a theoretical lens and the terms applied in multimodal analysis can open up an understanding of the multimodal literacy practices

of the English subject at a textual level, a classroom level, and the national level of policy, as represented by the examinations.

5.9 Ethical considerations

Ethical guidelines given by the Norwegian Committee for Research Ethics in the Social Sciences and Humanities (NESH) have laid the basis for conducting the research presented here. In addition, I genuinely believe that the researcher has an individual responsibility for conducting and disseminating research in an ethical manner (Merriam, 2009, pp. 234-235).

For Article 1, the student teachers were informed both orally and in writing about the study purpose. The study came about after the classes had taken place, so the students were approached after the classes but before any analysis had taken place. We informed them how the data would be stored and processed and that their consent to participation could be withdrawn at any point without explanation or consequence (NESH, 2006, p. 18). It is of course hard to overcome the power disparities between students and professional pedagogues, even in the double role of teachers and researchers, and it was therefore underlined that the students' course assessment and grading would not be affected by declining to participate. In addition to general participation, two students permitted sharing links to the videos they made at the end of the wiki project. We did not reveal any other students' names in the published article, and the photographs taken in class and used in the article did not show any students.

Data collection for Article 2 was assessed by the Norwegian Social Science Data Service (NSD) and approved as according with the data protection legislation before I contacted the students and parents to ask for free and informed consent to participation. An informative letter about the study included my contact information for questions, and the option for parents of giving full or partial informed consent to participation (see Appendix 1). This information was repeated in class to the students, who were also offered the opportunity to pose questions to the researcher. Some of the students did not wish to share their written texts, and the researcher emphasized that this would be

respected and that their willingness or unwillingness to participate would not influence their grades in the subject. Moreover, the researcher stressed that her presence would not alter any planned teaching, that she would remain in the background, and that student consent to participate could be withdrawn at any time. Anonymity was important for the students, and the teacher was not given access to the video recordings or interviews. Retaining the anonymity of the students in the published article was also important for me as a researcher. In the article that resulted from the study, all the informants were given pseudonyms based on a list of the statistically most frequent names in Norway for their age group. Facsimile student text examples in the article are blurred so that the student texts are not legible, but the layout and use of image do remain clear. All the video data were saved on two encrypted external hard disks in locked storage and later erased (Bjørndal, 2017, p. 159).

Another ethical question in Article 2 was critically examining a teacher and the literacy practices in her classroom according to multimodal criteria, insofar as the curriculum did not require the very focus on multimodality that my research emphasizes. It was imperative to show in the finished article that any observed lack of multimodality in the literacy practices in that classroom was not a discredit to the school or the teacher. My co-author and I therefore underlined the need for future change at the policy level.

In Article 3 I have followed strict—perhaps too strict—copyright rules and avoided reproducing material unless it was possible for me to identify the original sources and obtain permission for reproduction in the article. The Norwegian Directorate for Education and Training (Udir), as part of the educational apparatus, is not subject to the same rules when it comes to copyright as I am as a researcher. In the same manner as in Article 2, I chose to blur images when I was unable to identify the copyright holders. I wrote to Udir to ask permission to reproduce parts of the exams and found that its responses were vague on what and how much could be quoted from the examinations, including the tasks that Udir had produced. In the end, I chose to reveal as little as possible but enough to show how my findings and conclusions came about.

All in all, ethical considerations in research are founded on respect for the integrity of all human beings. I have aimed to observe my actions and choices in research and writing and to ensure that they follow not only all rules and regulations but also my own moral compass.

6 Presentation of the articles and discussion of the findings

This chapter discusses the overall findings and contributions of this thesis. I begin with a summary of the three articles.

6.1 Summary of the articles

Aiming on an overarching level to explore the role of multimodality in the literacy practices of English education in Norway, this thesis adopts three perspectives. Article 1 takes a future-focused viewpoint in looking at how teacher education can make the most of both traditional texts and affordances of digital technology for text creation (in this case in the shape of cooperative writing and wiki). Article 2 presents a single-case study of multimodality in literacy events in a grade 10 classroom. Article 3, which was intended to obtain a higher vantage point, looks at written grade 10 national exams in the English school subject between 2014 and 2018. In the next sections, I present brief summaries of each article, highlighting the research questions and the main findings. The articles are all peer reviewed and published in open access journals.

6.1.1 Article 1

The first article, “Wiki, tekster og arbeidsmåter i morgendagens engelskfag: et eksempel fra lærerutdanninga” [Wikis, texts, and working methods in tomorrow’s English education: An example from teacher education] aims to contribute to current discussions concerning literacy and digital technology in the English school subject.³² The article was written in collaboration with my colleague Hilde Brox; it was written in response to a call for papers in the journal *Acta Didactica* for a special issue on the future of language education in Norway.

The article asks how teachers of English can manage the balancing act of teaching literacy skills connected to traditional paper-based text types as well as newer digital

³² We wrote the article in Norwegian to cater to teachers and teacher educators of foreign languages in general, including Spanish, German, and French. Even though the article focuses on English, there are insights that can relate not only to language teaching in general but also to other subjects.

texts. Teachers often find it hard to bridge the gap between the extramural or out-of-school multiliteracies, and traditional, school-based literacies, especially in English (Langseth, 2012; Sundqvist & Sylvén, 2016). As a point of departure, Brox and I outline a sequence of lessons we conducted with student teachers, building on a wiki storyline. We used collaborative writing pads and wiki technology to encourage and challenge students to write a variety of texts. The process began and was propelled by using photos to instigate creativity and a search for facts and example texts connected to invented characters. At the end of the lesson sequence, a small fictitious universe had been created in the wiki, and the pre-service teachers had each produced a video, multimodally presenting their experience and reflections on what they had learned and how they could use it in their own future teaching practice.

One of the findings was that students' creative writing thrived with the wiki storyline method, even though they were reluctant to write text types with which they were not familiar. By means of Schwebs's (2006) categories of the multimodal, processual, and hypertextual aspects of digital texts, we explore the affordances of wiki technology and find that the wiki makes possible ensembles that challenge students. Collaborative writing and wikis can thus encourage a literacy practice that involves both "old" and "new" literacies in the English subject.

6.1.2 Article 2

This article, "A design-oriented analysis of multimodality in English as a foreign language" was written jointly with Professor Elise Seip Tønnessen, a co-supervisor of this thesis, and published in the *Designs for Learning* journal.

The article investigates multimodality in a Grade 10 English classroom during a four-week period when the teacher and her students worked with a novel that is powerfully illustrated. Data primarily consisted of observation notes, interviews, the novel itself, handouts from classes, and written student papers. As the title suggests, *multimodal design*, based on both the NLG's conception of multiliteracies and design in pedagogy (1996) and the more recent didactic design outlined by Selander and Kress (2010), is

used to describe and discuss literacy events and the literacy practice itself. In addition, the notion of *time scales* (Lemke, 2000) helped us look at the literacy events as individual moments and as part of a larger social context. The article asks how multimodality was involved in the teacher's design *for* learning and how this design was met by the students' design *in* learning.

The main finding is that both designs start out with a broad range of modes that are narrowed down to designs and products for assessment in which verbal modes carry the functional load. While this is not necessarily unexpected for a language subject, we argue that there is an unexploited potential for learning if modes beyond written and spoken language are recognized as relevant semiotic modes in school English. Some students added images to their written texts, even though this was not requested, indicating that the teacher's multimodal design for learning may have encouraged this practice.

6.1.3 Article 3

This article is called "Inspired by image: A multimodal analysis of 10th grade English school-leaving written examinations set in Norway (2014-2018)." It was published in *Acta Didactica* and aims to examine the role multimodality plays in assessment. Seeing the exam as an influential part of realizing the curriculum in practice, this article asks questions about how different modes contribute to the multimodal ensemble in reading and writing the English exam. The exam is called a "written exam"³³ even though it includes *reading* several texts on the obligatory preparatory day that precedes it. The article investigates the reading material and the tasks set; it also discusses exam guidelines and issues of audience and context.

My findings show a literacy practice in the English exam that is rich in visual modes for reception. The analysis indicates that images in the reading material may function as a gateway to both top-down reading strategies and cultural and aesthetic impulses that can

³³ <https://www.udir.no/kl06/ENG0012>

elaborate and extend the meaning potentials expressed, which can be helpful for L2 English students. In the exam questions, images function as prompts for production rather than as a mode to be employed in the creation of texts. This finding motivated the title of the article and adopts a phrasing from the exam questions that asks students to use image as “inspiration.” The article argues that although the digital written exam offers many multimodal affordances for reception and production, students are mainly invited to demonstrate their literacy in a monomodal way. It concludes that there is an imbalance between multimodal input and writing-focused output in the five national English exams set between 2014 and 2018.

6.2 Discussion

The overarching research question for this Ph.D. study is as follows: *What role does multimodality play in the literacy practices of the English school subject?* After having posed this question in three different contexts, it is time to summarize and discuss how the findings presented in the articles combine to offer answers. Because the main research purpose is to gain an understanding related to the Habermasian notion of practical interest, this discussion will look at several possible responses to the research question to obtain and disclose a deeper understanding of multimodality in English teaching and learning in Norway. In the articles and in the discussion that follows here, the answers to my question contain some description and explanation, but the discussion above all aims to promote an understanding.

Two dimensions were especially prevalent in the empirical findings. First, there is the finding of an imbalance between input and output when it comes to multimodality in the English subject. Articles 2 and 3 both show this feature. I discuss how to interpret this imbalance in the next section. Second, there is the issue of how digital media shape ELT and learning, especially multimodal aspects of communication. This dimension is present in all three articles, though most in the foreground in Article 1, and is discussed in section 6.3. Afterwards, I discuss the issue of what counts in English before taking a closer look at issues for future research, and the possible implications and limitations of the thesis.

6.2.1 Input

The findings in this dissertation strongly suggest that the English subject is rich in multimodal input. This is in alignment with the hypothesis and description in the introductory chapters. In Article 2, an illustrated novel is the main text on which the literacy events in the classroom are based, and the images in themselves and as part of the story, along with the popular illustrated diary genre, motivated several of the students' reading. Christensen categorizes this kind of use of multimodal texts as "teaching *with* multimodal texts" (2016, p. 16), which is reminiscent of Halliday's "learning through language" (1993, p. 113), or in this case, learning through multimodal texts. However, the presence of multimodal texts does not guarantee attention to how meaning is made with different modes. Salbego and Heberle (2015, p. 12) for instance, emphasize the importance of teaching students that images matter. They encourage directing students' attention to how images can foster understanding of the content so that students do not only read and concentrate on the written mode of texts. Receptive skills for reading multimodal texts are found to be useful in the analysis of the national exams in Article 3. Both the layout and the images contribute to making meaning through interplay with the words on the exams.

In examining how multimodal input supports English teaching and learning, it is relevant to look more closely at the modes used; specifically, the function of each mode and the interplay between modes. The data in this thesis show with particular force that visual modes are important and interact with the linguistic modes of written and spoken English. Article 3 demonstrates that the exams include well-composed multimodal ensembles in which visuals like photos, drawings, and infographics are important. The relationship between image and writing in the exams is typically to elaborate, either by specification (that one mode makes the other more precise) or explanation (paraphrasing; van Leeuwen, 2005, p. 230). Both these interactional forms support and reinforce meaning making, rather than challenge or confuse. Only some of the newspaper cartoons that feature in the exams are founded on ambiguity or mixed messages for comedic effect, as is typical of that genre. In an educational setting,

especially an assessment situation, a supportive relationship between modes is unsurprising and perhaps even intuitive. This finding also accords with research on L2 English in Greek reading comprehension tests, which showed that images “illustrate, repeat or add to the content of the mode of language” (Karatza, 2020). Another finding in Article 3 is that images bring in few new aspects and generally do not take on a leading communicative role. Instead, images tend to make the texts more accessible and interesting for students by adding humor and color. In some cases, images and layout have the function of creating an aesthetically pleasing and motivating text. Certain images can work as a starting point or support for understanding a topic and as such have the function of scaffolding the students’ understanding of the written mode and L2 English.

Furthermore, it is of interest to examine the data and findings to see which texts use images as a mode, and why they do so. In the exam preparation material that the students read the day before they sit for the exam, I found that the factual texts tend to be illustrated, whereas the literary texts tend not to be. I suggested that this may be because students are at a proficiency level where they are expected to be able to read between the lines without visual support. This tendency in the exam to not illustrate fiction may reflect the way literature, and the novel in particular, is not traditionally illustrated except for the cover. This is a contrast to the classroom practice observed in Article 2. For example, the literary text was supported in a larger multimodal frame of teaching, and the use of several modes during the lessons, such as images and video, has an important effect on understanding. Second, the literary text *did* have visual elements. In the novel (Alexie, 2007), the visuals even form an integral part of the narrative. Naturally, this choice of text for the classroom may have been motivated by aspects other than the multimodal, such as a focus on Native Americans. Yet, at the same time as the literary canon of English was replaced by general learning goals in the curriculum, graphic novels and other visual fiction have become more and more common cultural expressions, especially among young people. Students, who are used to seeing literary texts either illustrated or framed and supported within a larger teaching plan that

includes other modes and media, may experience the exam's presentation of literary texts as foreign to both their classroom and their everyday, extracurricular experiences.

In sum, one of the key characteristics of the English subject's multimodal literacy practices is that several modes in well-made ensembles are present as inputs for learning. Literary texts, however, seem to have more visual support in the classroom context than in the exam context. Based on the five years of exam sets that I investigated, literature excerpts in the exams appear more like novels: heavily writing-based, with few other modes except paratextual ones.

6.2.2 Output

When it comes to output, a main finding in this study is that when the 10th grade students were asked to produce texts for assessment, the focus was on modes related to writing. However, some tasks both in the classroom and on the exams did include writing about images. Whether or not to call this a multimodal practice is a question of preference and a bit of a gray area. It can be argued that such tasks include visuals and perhaps even multimodal aspects when the students are asked about the relationship between pictures and content knowledge. The primary role of images in these cases is to serve as inspiration for writing.

Images as prompts feature in all three articles in this dissertation. Images as stimuli and motivation for output have the benefit of being open enough to encourage creativity, albeit with a certain direction. In Article 1, for example, the images chosen as prompts had been carefully selected and cropped based on our perception of the meaning potential. Article 2 shows that students had the option of writing about images found in the novel they read, and in the exams presented in Article 3 some tasks gave the option of using images as writing prompts. Writing about images can to some extent be characterized as a multimodal literacy practice, given that students must interpret the image(s) and then communicate their ideas in a mode other than the visual one. Still, this transduction is used mainly to encourage use of the written mode. Article 1, however, shows a teaching plan for student teachers with more balance between input

and output. Certainly, the teaching sequence began traditionally, with a literacy event in which the pre-service teachers were asked to create a story by brainstorming about an image. They then wrote on collaborative pads as the second part of this literacy event; in the next event, they developed the storyline through the medium of the wiki. In other words, this was a teaching sequence focusing on text production that started with the traditional approach of using an image as a prompt for writing and then employed the “new” opportunity for collaborative writing that digital technology offers: in this case, in the shape of collaborative pads and wiki. While written mode and genres were the focus at these stages, the students ultimately produced a video to communicate their experiences and reflections. That means that multimodal opportunities were reopened at the end, letting students represent their thoughts using modes such as voice, pictures, and screenshots, in addition to writing. They could choose their design of modes and create multimodal ensembles. In this respect, the literacy practice demonstrated in Article 1 is different from those found in Articles 2 and 3, as it culminates with a multimodal product for assessment.

When it comes to eliciting multimodal output, it is worth noting that the exams analyzed in Article 3 consistently used the verb *create* text. As Skulstad (2022) demonstrates, the tasks themselves have a powerful impact on the design of students’ texts. For production of texts, the latest and current curriculum uses the verb *write* (Ministry of Education and Research, 2019). Whether future national exams will also use the verb *write* is partly an open question. Due to the COVID-19 pandemic, there have not yet been any national school-leaving exams based on the latest curriculum. The example tasks that are currently published, however, reveal that *write* is indeed the verb used for text production tasks (Udir, 2022). Multimodality or visuals are not currently mentioned in the assessment criteria, but appropriate *text types* can include multimodal texts. Summing up, output still appears to be associated with the writing rather than the creation of texts.

6.2.3 The supportive role of multimodality in the literacy practices of L2 English

One of the main contributions to knowledge in this dissertation is to point out asymmetries between input and output when it comes to multimodality in the literacy practices of the English school subject in Norway. Articles 2 and 3 both reveal this imbalance between a wide range of modes for reception and narrower bounds for production. In the classroom in Article 2, the teacher had designed a sequence of lessons that included several modes during the different stages from pre-reading to while-reading, but post-reading activities tied to the novel focused on written and spoken verbal output. Likewise, in the national exams, the reading material in the preparatory parts is multimodal, while the tasks set for creating texts focus mainly on the written mode. These findings corroborate those in the L1 research of Rogne (2012) and the review of Nordic-focused literature carried out by Elf et al. (2018), which points to multimodal reading skills or receptive skills as the primary focus in current educational practices. In sum, multimodal literacy practices in the English subject as they appear in this study appear to have not only less importance but can also seem invisible or silent. As long as the main focus is on words and other modes are mainly used to make meaning of those words, multimodality ends up in the shade.

There is a clear indication from this consideration of input and output that multimodality is mainly used to *support* the teaching and learning of English. Motivational and supportive aspects of multimodality for understanding language and content are key factors for this literacy practice (Maagerø & Tønnessen, 2022). It can also be claimed that multimodal input in the shape of multimodal texts and practices constitutes an established part of the English subject. The function of these practices is primarily to scaffold the teaching and learning of other L2 aspects, and multimodal literacy thus becomes functional and necessary for reception but not for production (see sections 2.4.3 and 3.4.1). By learning *through* different modes, the pedagogic incentives for using multimodality are primarily that of supporting linguistic mode and understanding.

6.3 Changing semiotic landscapes: Digital texts

Digital technology is an important element in this thesis, not because digital or educational technology is studied *per se*, but rather because literacy practices change with technology. Just as the chisels of the Romans led to distinctly (re)shaped letters, and the printing press changed literacy practices six centuries ago (Rannem, 2017), so the possibilities that emerge from digital communication technologies change current texts, their design, distribution, accessibility, and use (Bezemer & Kress, 2016; Kress & van Leeuwen, 2006). Article 1 explores some of the possibilities that digital technology affords and how teacher education can encourage involvement in new literacy practices. Professional digital competence “in language arts didactics involves an understanding of how digital technologies are shaping language and texts in today’s society and an ability to design learning activities that help students find their place in this digitalized textual culture,” according to Lund et al. (2014, p. 291). Digital media has made multimodality the new paradigm (Kress, 2003), and active members of society must understand multimodal texts and be able to express themselves in that context.

6.3.1 Digital media affordances

Digital media can offer a greater range of modes for teaching and learning and more options for choosing the most suitable mode for a given communicative task. One finding in Article 2 was that several students had added images to their written assignments without being asked to do so. This is most probably not only because digital technology makes it easy to make such additions but also a conscious choice on the part of the students. It is important in social semiotic research to see the connection between material expression and meaning making, between modes and media (Burn & Parker, 2003). We cannot know what motivated the students, but the texts produced in the class in Article 2 show that digital media shape second language teaching and learning and multimodal aspects of communication.

The dimension of how digital technology affords multimodal production of text is present in all three articles, though more in the background in Articles 2 and 3. Article 1 shows how cooperative writing and wikis can be included in a literacy practice that

seeks to make the most of the new opportunities offered by digital technology. While this can arguably be regarded as an instrumental approach (Brox, 2019, p. 58), the article nevertheless shows a flexible and open method in which the pre-service teachers had room to create their own explorations and reflections. Actualizing the dimensions of both input and output and the issue of digital affordances, Articles 2 and 3 exhibit how the current literacy practices of L2 English do not explicitly encourage production of multimodally complex texts, thus overlooking the opportunities embedded in digital text creation and failing to reflect the multimodal nature of much contemporary communication in virtually all spheres of life.

6.3.2 Digital media in and out of school

Another important aspect of digital texts is the opportunity and challenge of linking extramural literacies to what goes on in the language classroom (Chik, 2015; Zheng & Warschauer, 2017). English is one of the dominant languages online, and Norwegian students hear, see, and use the language all the time in various media, including digital. In response to this reality, education can focus on how to adopt and adapt various digital resources (Røkenes & Krumsvik, 2016) and approaches (Gee, 2003) for educational purposes and motivation (Maagerø & Tønnessen, 2022, p. 27; Sindoni et al., 2022, p. 234). In English education the use of *authentic texts* (i.e., those not written with foreign language learners in mind) is a well-established practice (Bakken, 2017; Ciornei & Dina, 2015; Peacock, 1997), and as everyday authentic texts become increasingly multimodal, it is likely they will be gradually adopted in L2 English education. Naturally, as van Leeuwen (2008) has pointed out, such authentic texts then become transformed by the recontextualization into a pedagogical context.

One challenge linked to digital texts and multimodality is the heterogeneity of students' extramural literacy practices and how to adapt to them in education (Michelsen, 2016). Language skills, as well as digital and multimodal literacies, vary greatly, as seen for instance among gamers (Brevik, 2016, 2019). There is also the chance that digital media are used to continue existing literacy practices, and Ørevik (2015) finds that the English

subject in Norway is in transition between “conventional ‘bookspace’ ... and digital media space” (p. 118). All in all, to be meaningful and make a difference in the lives of students, education must be able to provide learning that does not necessarily happen outside school but is still relevant for their futures. Article 1 shows how both traditional genres like letters and newspaper articles and newer text forms like posts on social media can be incorporated into the same universe by use of wiki storylines. By exposing students to various cultures and texts that they do and that they do not encounter in their everyday lives, by highlighting the nuances in communicational forms, and by looking at them critically, education can offer opportunities for students to develop their critical literacy (Ferreira et al., 2013; Habegger-Conti, 2015). Bildung today seems inextricably linked to multimodal forms of communication. While digitization is by no means not a prerequisite for all multimodal texts, very few digital texts are not multimodal. Furthermore, digital texts have a potential for more complex multimodal ensembles than analog texts have. Analog or paper-based texts can employ modes such as writing, layout, and image, whereas a screen text can include sound, film, animation, and all the modes involved in these. This convergence and the increased multimodal complexity point toward the conclusion that multimodality is an inseparable part of the literacy skills needed in the societies of today, let alone tomorrow (Gee, 2014; Kress & van Leeuwen, 2006).

6.4 What counts as literacy in English?

Article 2, published in 2018, proposes that the English subject curriculum in Norway would benefit from a multimodal turn. It suggests a change to promote literacy practices that include multimodal output. After the latest reform, multimodal texts now do appear in the latest English subject curriculum in the section on *reading* as a basic skill and specified in the aim of *writing* cohesive texts (Ministry of Education and Research, 2019a). As indicated, however, the implementation of the curriculum is not straightforward. First, the way multimodality is presented in the curriculum can make it unclear for teachers how to operationalize it. Next, experiences from the L1 Norwegian subject already show that implementation of multimodal texts in education is a challenge

in spite of positive attitudes among teachers toward multimodality (Løvland, 2007). According to Burgess (2016), there is a gap between theory and practice. On the one hand, Burgess points out the level of research and the policy level at which curricular decisions are made, and on the other the micro level of school where technology, a lack of concepts concerning multimodality, and assessment are practical factors that pose challenges for teachers' and schools' successful realization of the curriculum. One of the contributions of this dissertation is to help close this gap by indicating the role that multimodality already plays in the practices of the English school subject.

6.4.1 Multimodality as a curricular aim and cultures of recognition

At the start of this dissertation, I argue that the English subject has been multimodal for a long time if one looks closely at the learning material and ways of working with the subject. One step toward a multimodal turn in the subject may be to *recognize* these practices as multimodal (Kress, 2010, Bezemer & Kress, 2016). Recognition is closely tied to the notion of affordances and to which affordances are recognized by different people. Building on Gibson, van Leeuwen observes that “different observers might notice different affordances, depending on their needs and interests and on the specifics at hand. Perception is selective. And yet the other affordances are objectively there” (van Leeuwen, 2005, pp. 4-5). In other words, if modes other than words (and the affordances of those modes) are overlooked in educational contexts, students learn that only the affordances of words matter.

Kress and Selander (2012); (2021) also speak of *cultures of recognition* and how expressions of students' knowledge, which they call *signs of learning*, are recognized and “accepted as knowledge and learning in the specific context” (Kress & Selander, 2012, p. 266). What lies in the notion of culture of recognition is that there are traditions in education on a collective level of established, often institutional, practices of what counts as knowledge in a field. In summative assessment, for instance, there are certain goal attainments and ways of representing that knowledge (Svårdemo Åberg & Åkerfeldt, 2017). For multimodality to become a curricular aim, the cultures of recognition must acknowledge signs of knowledge beyond signs made in written or

spoken mode. Teachers on an individual and collective level need to recognize these signs of learning, but to do so represents a cultural change (Elf et al., 2018). In formative assessment, or assessment for learning, recognizing several modes becomes a “means for allowing teachers to engage in discussions with learners about their interpretations and then to shape the next prompt in such a way that it is better suited” (Kress & Selander, 2012, p. 268). In Article 2 we look at several students’ texts and go into depth on Julie’s text and her remarkable use of “demand” images in combination with writing. This analysis is an example of how a multimodal approach that recognizes multimodal texts as genuine, even powerful, signs of learning can show learning beyond words (or a lack of words). For these other signs of learning to count, they need to be recognized and included in assessment.

Recognizing modes and their affordances takes place both when someone produces a text and when someone interprets it. On a material level there is the recognition of meaning potential in modes, and then on a cultural level there is the question of what is seen as appropriate for the communicative context (Kress, 2003; Lindstrand, 2022). It can be presumed that the students who included images in their texts in Article 2 made multimodal compositions because the visual modes together with the words communicated their message. Whether these were recognized is a different question. What counts as valid knowledge is defined by the curriculum and the traditions of pedagogy.

6.5 Implications and future research

This study has identified that there is little scope for multimodal output for Norwegian 10th grade students, and that assessment criteria do not include multimodal aspects. While this was perhaps not unexpected based on the previous curriculum, despite its inclusion of an extended notion of texts, the inconsistency between multimodal input and output in the written exam for 10th grade is a finding that raises many new questions. One essential question is *what* the exam should assess. On a practical note, what a summative test *can* assess. Canale (2022) and Bearne (2009), for instance, claim that

multimodal literacy is easier to assess in the classroom in the shape of formative assessment. Bearne notes that the development of a multimodal literacy practice in education “depends on teachers having a sense of what they should be teaching, and national curricula and frameworks provide the guidance” (p. 19). The need for a common basis for assessment of multimodal texts has been an issue ever since the term came into the curriculum in 2006 in Norway (Hatlehol et al., 2010; Hjukse, 2007; Løvland, 2007; Sjøhelle, 2011). Future research in Norway and abroad should investigate the relationship between curricula and assessment and add to ongoing research efforts in both L1 and L2 settings (e.g. Fjørtoft, 2020; MuLVu, 2022; Ørevik, 2022; Skulstad, 2022).

6.5.1 Overt instruction and metalanguage

Connected to the issues of assessment and curricula, several researchers have pointed out the need to introduce a metalanguage for multimodal texts in education (Anderson & Kachorsky, 2019; Maagerø & Tønnessen, 2022, p. 37; Macken-Horarik, 2016, p. 223; Macnaught, 2018; O'Halloran et al., 2015; Sindoni et al., 2022). For students and teachers, a metalanguage can enable more informed and critical engagement with multimodal texts. Just as grammar lessons are carried out in education, specifically looking at details that are usually embedded in a greater whole, so a visual grammar (Kress & van Leeuwen, 2021) and multimodal metalanguage (Shin et al., 2020) could be taught as an independent part of the subject, that in turn can be integrated into the whole. The NLG's concept of overt instruction as part of the multiliteracies pedagogy might be worth reexploring further for this purpose. Learning about multimodal texts and not just learning through them (Archer, 2000, p. 83) can give students tools to make better use of various modes of communication. However, what sort of metalanguage and which practical approaches can be used to introduce multimodal perspectives in classrooms are issues that need more research.

6.5.2 Teacher education and multimodal literacy practices

A natural place to start implementing a metalanguage for multimodal texts is teacher education. Equipped with an understanding of and a conceptual framework for discussing multimodality, cultures of recognition can be built up among teachers. With a metalanguage, education can promote multimodal literacy and use the potential of multimodality to continue to support English teaching.

One of the implications of this study for teacher education is looking at the tradition of multimodal input from a new perspective. The silent practices of multimodal input in the subject provide a solid foundation for further development of a multimodal understanding of communication. The cogwheel model presented in Article 2 outlines how not only the texts but also the teaching of English includes multimodality and varied semiotic approaches. Activities and literacy events on different time scales such as silent reading, seeing a video, making reading log updates, and full-class discussions employ different modes that shape the lessons and invite students to make meaning in several ways. And the model, though context specific, welcomes seeing teaching as a multimodal ensemble.

In school, broad conceptions of multimodality tend to be translated into *multimodal texts*, something that is seen as an unfortunate reduction by some (Bazalgette & Buckingham, 2013) and as a natural adaptation by others (Ryan et al., 2010) in the face of “an already crowded curriculum” (Macken-Horarik, 2016, p. 85). There is constant pressure and negotiation taking place about the curriculum and school contents, and overloaded language curricula (Burgess, 2016; Hafner, 2019, p. 13) pose a serious challenge. These issues need to be addressed in teacher education. I think there is great potential for Bildung (Fenner, 2005) in a multimodal approach that focuses on agency and access to communication and social participation. There are many research possibilities in the combination of multimodal input, output, and assessment for cultural, aesthetic, and deep learning in teacher education (Østern, 2013, pp. 52-53). Slowness in teacher education has been pointed out as an obstacle when it comes to the implementation of multimodality in education (Si et al., 2022), but there are also efforts

to close the gap between theory and practice in teacher education (Di Cesare & Rowsell, 2020; Tour & Barnes, 2021).

6.6 Limitations and personal reflections

The research design for this case study was exploratory and partly emergent (Merriam, 2009, p. 44). Starting with a broad overall question meant that I could work abductively with data and theory rather than delimiting in advance which aspects of multimodality to explore (Stotsky & Mall, 2004, p. 7). This exploratory design affected the scope, depth, and validity of this study in significant ways.

One of the main challenges and limitations of this case study is that in aiming to obtain a comprehensive picture of multimodal literacy practices of the subject, I cast a wide net. Brevik and Rindal (2019) have identified four main objects of inquiry in Norwegian research in English didactics: students, teachers, student teachers, and documents. The present study can be said to encompass all of these. I chose three different contexts: the micro level of the classroom, the meso level of teacher education, and the macro level of the exams. Though I stand by my choices, I can see in retrospect that the selection of cases was made partly to strive toward the ultimately unobtainable goal of generalizability. I have argued that my cases investigate relevant situations in English education in Norway, thus vouching for analytic generalizability, but I also acknowledge that the scope of this study does not cover the entirety of the English subject. It would thus be of interest for future research to investigate other contexts and adopt other perspectives. Examples include the multimodal literacy practices preceding 10th grade and in upper secondary English, along with recent developments in teacher education, with multimodality now included in textbooks for English subject didactics (e.g. Fenner & Skulstad, 2020). Furthermore, different perspectives, such as teachers' and students', might also be interesting paths to pursue.

Next, in relation to the scope of analysis of my cases, not all the available data were subjected to analysis. Taking a retrospective look, a weakness of Article 1 is that the student videos were not a major part of the data. A multimodal analysis of the videos

that the students produced could have answered questions concerning their choices of modes for different content (e.g. Gilje, 2011), their orchestration, and their thoughts on collaborative digital writing and the creation of multimodal hypertexts. In short, the pre-service teachers' multimodal literacy could have been explored in greater depth. Instead, the article focuses on the possibilities and affordances of digital technology. This experience has, however, altered my practice as a teacher educator. Especially in relation to video assignments, I now take care to discuss with pre-service teachers the criteria for what makes a good teaching video, and why that is the case.

Another possible limitation lies in the predicament of combining large data sets with in-depth analysis. As discussed in chapter 5, the articles go into depth, though with some selection, and with more granularity than many other empirical investigations of multimodality in education. This was necessary to obtain an overview of data that stretched over several lessons or several years of exams. Data collected for all three articles were all closely associated with reading and producing texts. Other facets of the English subject, such as teaching and learning grammar and pronunciation were not examined. This limitation of scope was necessary to create a manageable research focus.

Returning to validity, this study attempts to describe and understand the role of multimodality in the literacy practices of English education in Norway, yet it only examines the contexts of 10th grade and teacher education. I have argued that these are important vantage points, and as I come to the close of this study, I hope my ambition of researching for practical interest and understanding has been achieved. This study offers some important indications and contributions to knowledge, though much remains to be researched. In sum, the research possibilities stretch from looking at metalanguage to investigating multimodality in relation to assessment, cultural, aesthetic, and deep learning in English and to studying different contexts and perspectives.

6.7 Concluding remarks

In aiming to explore the role of multimodality in the English subject, this dissertation has found that it is powerfully present in the subject's literacy practices when it comes to input; that is, when it comes to understanding and making meaning of texts and content. I have argued that these multimodal practices are largely silent or have gone by other names in academia, such as aesthetic approaches in didactic research. In school, motivation, variation, and scaffolding have been motives for what is largely a multimodal literacy practice. This dissertation can contribute to an explicit understanding of present multimodal literacy practices in school English.

An important contemporary backdrop to this study is the medium of the screen. As far as digital texts are concerned, this thesis has offered an example of how writing and multimodal composition through the means of collaborative writing, wikis, and multimodal video presentations by pre-service teachers can involve several modes, in a design that stimulates a literacy learning that includes multimodality. I have also indicated that there is potential for a more multimodal practice in English from the fact that students now often produce texts digitally, for both formative and summative assessment. Production of multimodal texts as part of the literacy practice of English is something that needs further research.

One of the main contributions of this dissertation in terms of subject didactics is the employment of a multimodal perspective on phenomena that are familiar, such as composition of digital texts in various genres, literacy events in the English literature classroom, and the national written exam. In this way, it is possible to articulate and bring to the fore aspects of the subject that have been under-researched, unspoken, or even ignored. In terms of the research field of multimodality in language learning, this thesis contributes knowledge about the English subject as it is taught and tested at the end of lower secondary school in Norway. It also explores some possibilities for teacher education to let pre-service teachers explore and experience digital and multimodal text production. The investigations and discussions in this dissertation can be of use to

teachers, to the field of multimodality and pedagogy, to English subject didactics and teacher education, and to policymakers.

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Appendices

Appendix 1 – Information about the study and consent form

15. desember 2015

Informasjon om forskningsprosjektet *Tekstkompetanse i engelsk* (*Literacy and Multimodality in English Teaching and Learning in Norway*)

Jeg heter Ingrid Jakobsen og er doktorgradsstipendiat ved Institutt for lærerutdanning og pedagogikk ved Universitetet i Tromsø. Prosjektet jeg jobber med handler om tekstkompetanse, og hvilke ressurser og arbeidsformer lærere og elever bruker i engelskundervisningen. Jeg ønsker å bidra med kunnskap som vil komme til nytte i utdanningen av framtidige engelsklærere. Jeg har fått muligheten av lærere og rektor ved _____ skole til å gjennomføre prosjektet i utvalgte klasser.

Hva innebærer deltakelse i studien?

Studien vil ikke gripe inn i undervisningen. Data vil bli samlet inn ved hjelp av observasjon med forskerlogg, videoopptak av klasseaktivitet, stillbilder av undervisningssituasjoner og elevarbeider, og intervju med elevene i grupper på to til fire elever. Videomaterialet vil brukes til å se hvordan lærere og elever jobber, og stillbilder fra video eller fotoapparat vil danne grunnlag for elevintervju sammen med spørsmål. Dersom du som forelder/foresatt ønsker det, kan du på forespørsel få se spørsmål til intervju.

Hva skjer med informasjonen om deltakerne?

Datamaterialet skal så langt det lar seg gjøre registreres anonymt. Ingen navn på elever, lærere, eller skolens navn skal framkomme i presentasjon av forskningsresultatene. Alle personopplysninger vil bli behandlet konfidensielt. Alt digitalt materiale skal oppbevares på en ekstern harddisk for ekstra sikkerhet, og papirer og harddisk holdes innelåst slik at det ikke er tilgjengelig for andre. Klassens lærer vil heller ikke få tilgang til datamaterialet. Generelle funn vil presenteres for skolen, for videreutvikling av skolens pedagogiske virksomhet.

Frivillig deltakelse

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du har spørsmål, ta kontakt med stipendiat Ingrid Jakobsen på telefon 77660439 eller på e-post til ingrid.jakobsen@uit.no.

Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS.

Samtykke til deltakelse i studien

Foresatte bes fylle inn skjema sammen med barnet:

Jeg har mottatt informasjon om studien. Mitt barn ønsker å delta.

Kryss av

- Jeg samtykker i at mitt barn kan delta i intervju, filmes og fotograferes i engelskundervisningen, og at elevarbeid kan brukes uten personidentifikasjon.

Alternativ:

Dersom du har reservasjoner mot deler av datainnsamlingen kan du la avkryssingsboksen over stå tom og spesifisere samtykke ved å krysse av en til fire alternativer her:

- Jeg samtykker i at mitt barn kan delta i intervju.
- Jeg samtykker i at mitt barn kan filmes i engelskundervisningen.
- Jeg samtykker i at mitt barn kan fotograferes i engelskundervisningen.
- Jeg samtykker i at mitt barns elevarbeid kan brukes (uten personidentifikasjon).

Barnets navn: _____

dato og foresattes underskrift

Appendix 2 – Letter from the Norwegian Social Science Data Services



Ingrid Karoline Jakobsen

Institutt for lærerutdanning og pedagogikk UiT Norges arktiske universitet

9006 TROMSØ

Vår dato: 25.03.2015

Vår ref: 42501 / 3 / AMS

Deres dato:

Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 26.02.2015. Meldingen gjelder prosjektet:

<i>42501</i>	<i>Literacy and Multimodality in English Teaching and Learning in Norway</i>
<i>Behandlingsansvarlig</i>	<i>UiT Norges arktiske universitet, ved institusjonens øverste leder</i>
<i>Daglig ansvarlig</i>	<i>Ingrid Karoline Jakobsen</i>

Personvernombudet har vurdert prosjektet, og finner at behandlingen av personopplysninger vil være regulert av § 7-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet gjennomføres.

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

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

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

Personvernombudet vil ved prosjektets avslutning, 19.12.2017, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Katrine Utaaker Segadal

Anne-Mette Somby

Kontaktperson: Anne-Mette Somby tlf: 55 58 24 10

Vedlegg: Prosjektvurdering

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

Avdelingskontorer / District Offices:

OSLO: NSD, Universitetet i Oslo, Postboks 1055 Blindern, 0316 Oslo. Tel: +47-22 85 52 11. nsd@uio.no

TRONDHEIM: NSD, Norges teknisk-naturvitenskapelige universitet, 7491 Trondheim. Tel: +47-73 59 19 07. kyrre.svarva@svt.ntnu.no

TROMSØ: NSD, SVF, Universitetet i Tromsø, 9037 Tromsø. Tel: +47-77 64 43 36. nsdmaa@sv.uit.no



FORMÅL

Prosjektets formål er å undersøke hvordan literacy innen engelskfaget forstås og jobbes med av lærere og elever på ungdomstrinnet i norsk skole. Elevene møter et mylder av tekster og kommunikasjonsformer i og utenfor skolen. Hva ser lærerne som sin rolle, og hvordan oppfatter elevene det tekstuniverset de møter i skolens regi? Multimodale tekster og multimodal analyse vil stå sentralt som forståelsesramme for prosjektet.

Forskningsspørsmål: 1) Hvordan designer lærere en literacy event i engelskfaget? 2) Hvilken mening skaper elevene i møtet med lærerens design?.

INFORMASJON OG SAMTYKKE

Utvalget (lærere, elever og foresatte) informeres skriftlig og muntlig om prosjektet og samtykker til deltakelse. Informasjonsskrivet er godt utformet.

SENSITIVE OPPLYSNINGER

Det skal registreres hvilket morsmål eleven har. Personvernombudet tar derfor høyde for at det behandles sensitive personopplysninger om etnisk bakgrunn (f.eks. samisk bakgrunn).

INFORMASJONSSIKKERHET

Personvernombudet legger til grunn at forsker etterfølger UiT Norges arktiske universitet sine interne rutiner for datasikkerhet. Dersom personopplysninger skal lagres på mobile enheter, bør opplysningene krypteres tilstrekkelig.

PROSJEKTSLUTT OG ANONYMISERING

Forventet prosjektslutt er 19.12.2017. Ifølge prosjektmeldingen skal innsamlede opplysninger da anonymiseres. Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes. Det gjøres ved å:

- slette direkte personopplysninger (som navn/koblingsnøkkel)
- slette/omskrive indirekte personopplysninger (identifiserende sammenstilling av bakgrunnsopplysninger som f.eks. bosted/arbeidssted, alder og kjønn)
- slette lyd- og videoopptak.

VIDERE LAGRING OG BRUK AV DATA

Personvernombudet anbefaler at forsker tar kontakt med elever og foresatte tidlig i prosessen dersom dette blir aktuelt. Ta gjerne kontakt med oss hvis det er spørsmål knyttet til dette.

Appendix 3 – Interview guide (students)

Questions were posed in Norwegian.

Questions for the students in 10th grade about English:

The students introduce themselves so that I can link voice and name in retrospectively listening to the recording.

1. Claim: English is easy for me to learn.
2. Påstand: English is hard for me to learn.
3. Finish these statements:
 - a. In school I learn more/better English from...
 - b. In my spare time I learn more/better English from ...

Text types: video, film, music, image, poster, written text, internet, textbook, tasks...

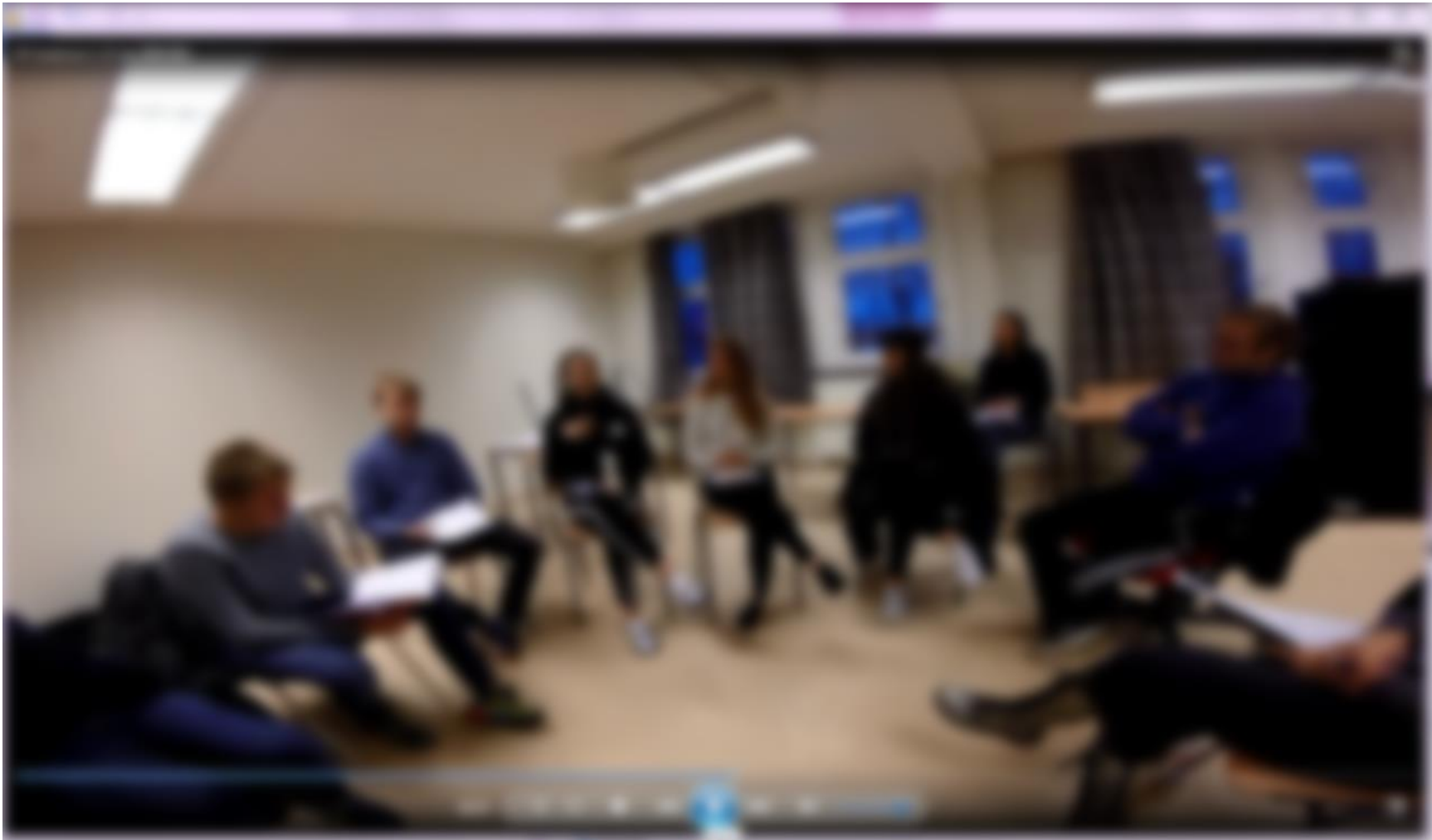
Activity types: writing, reading, drawing, singing, listening, speaking, presenting, explaining, discussing...

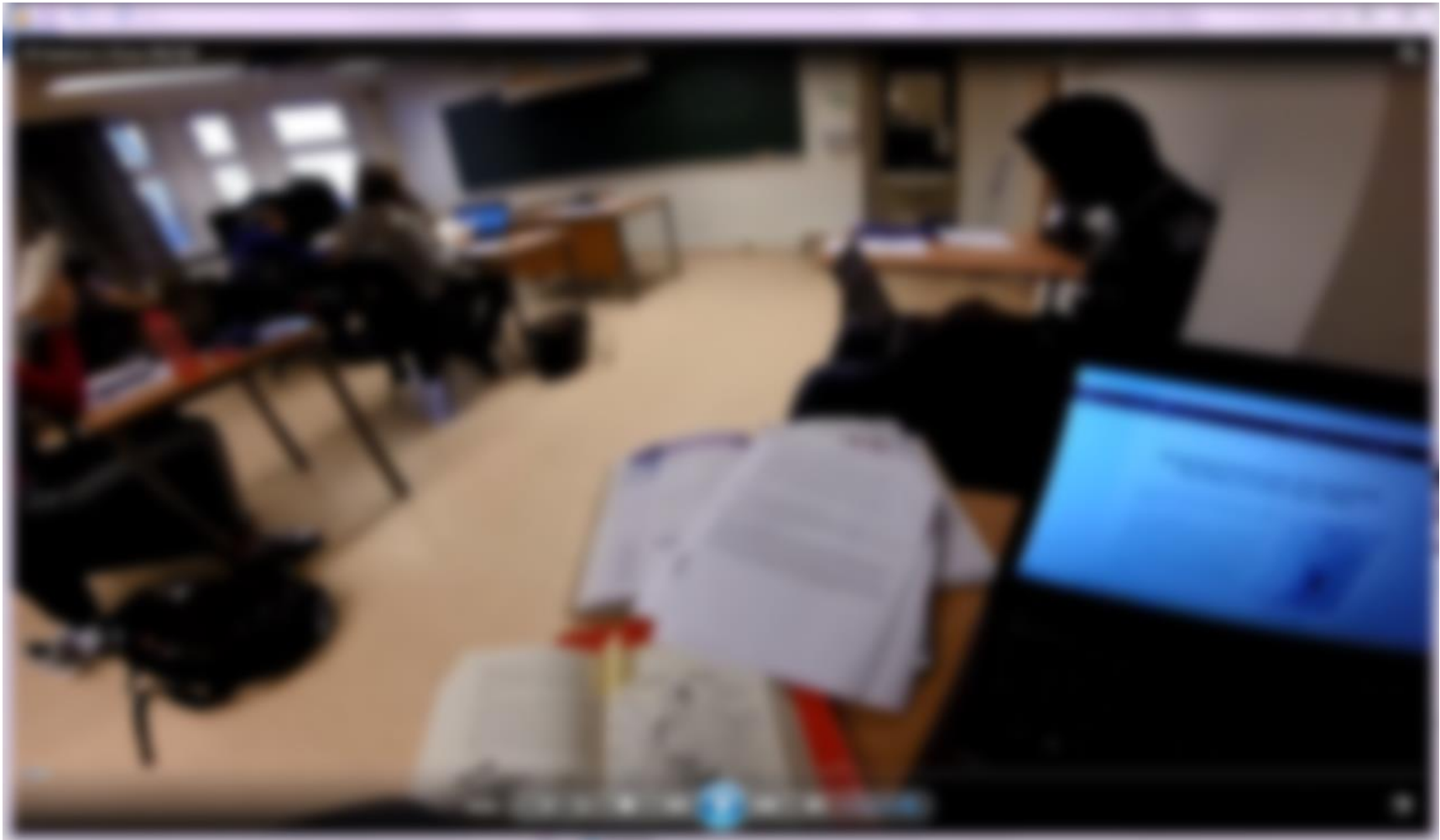
4. Describe a typical English class.
5. Image. What do we see here? Which text are you working with? What did you learn in this lesson? What do you think your teacher wanted you to learn?
6. What do you need to learn to do well in English in school?

Appendix 4 – Photo prompts for student interviews

The photos were anonymized before insertion into this dissertation. They were full-quality photos at the time of the interviews.



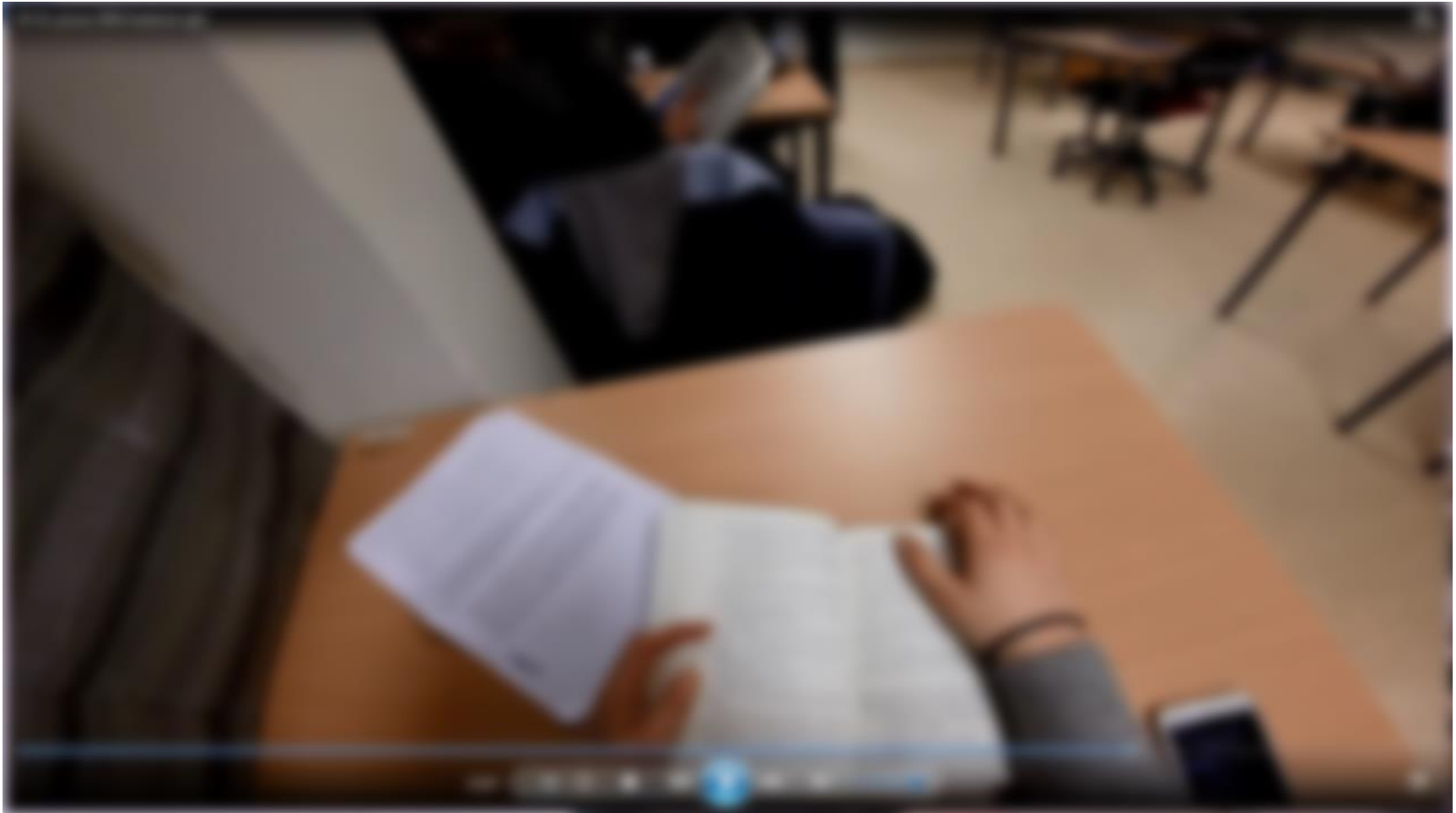












Appendix 5 – Interview guide (teachers)

Questions were posed in Norwegian.

Utgangspunkt for semi-strukturert lærerintervju:

Jeg ønsker å spørre deg om arbeidsformer og læringsressurser knyttet til arbeid med tekster i engelskfaget. *Tekster* i denne sammenheng brukes i utvidet forstand, og inkluderer for eksempel teater, film, musikk, bilder, og tradisjonelle trykte tekster på papir og digitalt. Som forsker har jeg et *multimodalt* blikk. Det vil blant annet si at jeg ser på sammensatte tekster og hvordan ulike uttrykksmåter virker sammen, for eksempel når et bilde illustrerer en tekst, slik de fleste lærebøker gjør. Her er noen spørsmål jeg vil ta som utgangspunkt for intervju:

- 1) Hvilke fag underviser du i (nå og tidligere), hvor lenge har du vært lærer, hvilke trinn?
- 2) Hvilke ulike roller spiller trykket tekst, bilder, lyd, film, osv. i din engelskundervisning?

For eksempel:
 - a. hovedtekst, støttetekst, variasjon, belønning, motivasjon, utfordring?
 - b. førlesingsfase, under lesing, etter lesing, bearbeiding, etc?
- 3) I hvilken grad bruker du en lærebok, og opplegget som følger med boka? Hvorfor/hvorfor ikke? Hva baserer valgene dine seg på?
- 4) Hvilken type tekster (i utvidet forstand) lager elevene i engelsktimene? Ber du dem jobbe muntlig, skriftlig, digitalt, gjennom drama, sang, tegning etc.?
- 5) Hvilke av de ovennevnte læringsaktivitetene/produktene danner oftest grunnlag for undervegsvurdering og sluttvurdering? Hvorfor?
- 6) Har dere jobbet med lesestrategier i engelskfaget det siste året? Hvis ja:
 - a. Hvilken type strategier har dere jobbet med?
 - b. Hvor fikk du som lærer opplæring i å jobbe med lesestrategier?
 - c. Er lesestrategier for engelsk forskjellig fra andre fag? Hvordan?
- 7) Spørsmål bare til Unni:
-dette overlapper nok litt med spørsmålene over.

Du jobber variert. Fortell om hvordan du planlegger del og helhet i undervisninga? For eksempel:

- a. Noe av der første jeg fikk observere i klassen var arbeidet med boka *The Curious Incident of the Dog in the Nighttime*. Arbeidet munnet ut i en presentasjon med plakat. Fortell om målene med å be elevene jobbe slik?

Er selve plakaten en del av vurderinga du gjør at presentasjonen? Hvordan kan man ta med estetiske uttrykk i vurderinga i engelskfaget (eller andre fag?)

- b. Da dere jobbet med tentamen viste du videoklipp om Humans of New York. Fortell om undervisningopplegget ditt rundt tentamensarbeidet.
- c. Da elevene leste sine essays om den kalde krigen var det noen av dem som viste filmklipp som en del av sin presentasjon. Hvordan forholder du deg til det i vurderinga? Hvilken støtte finner du i vurderingskriterier osv. i slike tilfeller?

Appendix 6 – Author contribution statement (Article 1)



Required enclosure when requesting that a thesis be considered for a doctoral degree

Declaration describing the independent research contribution of the candidate

In addition to the thesis, there should for each article constituting the thesis be enclosed a declaration describing the independent research contribution of the candidate (problem formulation, method, data collection, analysis, interpretation, writing etc.)

For each article the declaration should be filled in and signed by the candidate, then circulated to the other co-authors for signatures.



Article no: 2

Authors: Hilde Brox and Ingrid K. Jakobsen

Title: Wiki, tekster og arbeidsmåter i morgendagens engelskfag: et eksempel fra lærerutdanninga

The independent contribution of the candidate:

This article was written in close collaboration. Brox and Jakobsen wrote 50% each, and did data collection, problem formulation and analysis together. Brox developed the parts relating to wiki technology, and Jakobsen the parts relating to multimodality. The discussion and conclusion were developed collaboratively. The two authors wrote in a shared document, and have written and edited each other's contributions. Both authors are considered first authors, and are listed alphabetically.

 Signature of the candidate Hilde Brox	 Signature of co-author 1 Ingrid Jakobsen
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Appendix 7 – Author contribution statement (Article 2)



Required enclosure when requesting that a thesis be considered for a doctoral degree

Declaration describing the independent research contribution of the candidate

In addition to the thesis, there should for each article constituting the thesis be enclosed a declaration describing the independent research contribution of the candidate (problem formulation, method, data collection, analysis, interpretation, writing etc.).

For each article the declaration should be filled in and signed by the candidate, then circulated to the other co-authors for signatures.

Article no: 2

Authors: **Ingrid K. Jakobsen & Elise Seip Tønnessen**

Title: **A Design-Oriented Analysis of Multimodality in English as a Foreign Language**

The independent contribution of the candidate:

The candidate came up with the research design, and did the collection/construction of data. She organized data and selected the main examples for the article. Analysis was a joint effort between the candidate and her supervisor, who discussed the analytic approach and wrote together. The candidate produced the cogwheel model, which was expanded in collaboration, when the supervisor introduced the candidate to the concept of time scales as an analytical perspective. In terms of work effort the candidate produced about 75% of the article, and features as the first author, with the co-author as second author.

<p><i>Ingrid Jakobsen</i> Signature of the candidate</p> <p>Name (bold letters): INGRID JAKOBSEN</p>	<p><i>Elise Seip Tønnessen</i> Signature of co-author 1</p> <p>Name (bold letters): ELISE SEIP TØNNESSEN</p>
<p>Any Comments:</p>	<p>..... Signature of co-author 2</p> <p>Name (bold letters):</p>
	<p>..... Signature of co-author 3</p> <p>Name (bold letters):</p>
	<p>.....</p>

Part Two: The Articles

Article 1

Hilde Brox

*Doktorgradsstudent ved Institutt for lærerutdanning og pedagogikk, UiT
Norges arktiske universitet*

Ingrid K. Jakobsen

*Doktorgradsstudent ved Institutt for lærerutdanning og pedagogikk, UiT
Norges arktiske universitet*

Wiki, tekster og arbeidsmåter i morgensdagens engelskfag: et eksempel fra lærerutdanninga

Sammendrag

Artikkelen diskuterer hvordan wiki kan brukes i engelskundervisning for å la nye og tradisjonelle teksttyper møtes i digital interaksjon. Med utgangspunkt i begrepene multimodalitet, hypertekstualitet og prosessualitet diskuterer artikkelen et eksempel fra et undervisningsopplegg for lærerstudenter. Basert på et bilde skapte studentene et felles nettsted og en kollektiv, fiktiv, men realistisk historie. Historien dannet så i neste omgang en ramme for produksjon av tekster i ulike modaliteter og sjangre. Bildet etablerte en bestemt historisk og kulturell kontekst som studentene aktivt måtte utforske for å skape sine tekster. Wikiens funksjonaliteter åpnet opp for samskriving, utvikling av ferdigheter for å tolke og skape tekster med sammensatte modaliteter, utnyttelse av hypertekstens struktur og samarbeid om tekstskaping som prosess på tvers av tid og rom. Dette er kunnskaper og ferdigheter framtidige lærere vil trenge.

Innledning

De siste års hurtige teknologiske utvikling har åpnet opp for et spekter av nye medieformer og dermed for nye typer tekster. I dette har engelsklæreren hatt en spesiell utfordring. På den ene side er Internett og digitale medier kanskje den viktigste kilden til engelsklæring blant dagens unge, siden en betydelig del av unges input av engelsk utenfor skolesammenheng stammer fra digitale kilder (Aniol, 2011). På den andre siden har skriving og lesing alltid stått som sentrale ferdigheter i engelskfaget, men da i stor grad basert på tradisjonelle tekster. Spriket mellom nye og etablerte teksttyper og tekstkompetanser oppleves derfor som spesielt stort nettopp i engelsk (Langseth, 2012, s. 2-3).

Det er all grunn til å anta at stadig større andel av framtidens tekstproduksjon vil foregå via digitale kanaler. Hva må så framtidens engelsklærere kunne? De

må nok fortsatt forholde seg til elever som har gode ferdigheter i engelsk, men begrenset kompetanse når det gjelder de mer tradisjonelle sjangre. De må antakeligvis i enda større grad enn i dag klare å engasjere elever som lett og flytende kommuniserer på engelsk med likesinnede på nettet, men som gjerne kjeder seg i møte med skolens tekster. De må derfor kunne bygge broer mellom disse to tekstuniversene på måter som oppleves relevante og som motiverer elevene. Hvordan kan så læreren i praksis gjøre dette?

Ture Schwebs (2006) nevner tre egenskaper ved digitale teksttyper som skiller dem fra de tradisjonelle analoge; nemlig *hypertekstualitet*, *prosessualitet* og *multimodalitet*. Med hypertekst menes struktureringsprinsippet basert på lenker og pekere som finnes i de fleste nettbaserte tekster og som bryter med det lineære prinsippet som dominerer analoge tekster ved at leseren inviteres til å velge leserekkefølgen. *Prosessualitet* retter oppmerksomheten mot det flyktige og dynamiske ved digitale tekster, i kontrast til det stabile ved f.eks. en trykket bok. *Multimodalitet* handler blant annet om samspillet mellom det visuelle og verbale i teksten, det være seg illustrasjoner så vel som layout og bokstavens utseende, og hvordan disse bidrar til tekstens mening. Bildet har med den digitale teknologien fått en mer sentral rolle enn før, noen mener til og med at det i dag er det visuelle som dominerer over skrift (Kress, 2003, s. 8). Bildets endrede status gir det en annen rolle i skapningen av mening (Jewitt, 2005).

I denne artikkelen vil vi se nærmere på hvordan man kan ivareta fokus på etablerte, tradisjonelle tekstsjangre i engelskundervisningen og samtidig utnytte de nye modaliteter og muligheter som følger med digital teknologi. Hypertekstualitet, prosessualitet og multimodalitet har ikke bare endret tekstene; også *måten* digitale tekster skapes på skiller seg fra tradisjonelle måter, noe som igjen krever nye typer *ferdigheter*. Barn og unge vokser opp i et komplekst tekstlig og semiotisk landskap: "Tidligere separate medier integreres nå i en og samme plattform, en utvikling som kalles *konvergens*" (Mangen, 2008, s. 6). Til tross for massiv eksponering for konvergerende tekster vet ikke nødvendigvis elevene hvordan de skal navigere, og her spiller skolen en viktig rolle:

Skolens ansvar er å bevisstgjøre elevene på hvordan disse tekstene er konstruert, hvordan de skal forstås og tolkes, og ikke minst at de må være gjenstand for kritisk vurdering. Elevene må lære å forstå hvordan billedlige uttrykk spiller sammen med verbaltekst, og hvordan alle elementene samlet kommuniserer et budskap, både når det gjelder skjermttekster og papirtekster (Roe, 2011, s. 53).

Gjennom et konkret eksempel vil vi vise hvordan ny teknologi kan åpne opp for nye arbeidsformer og måter å jobbe på som kan løfte elevene fra primært å være konsumenter til å bli aktive produsenter av et bredt spekter av tekster.

Et viktig poeng i vår argumentasjon er at ikke alle digitale verktøy som benyttes til tekstskaping vil være like framtidsrettede, i den forstand at de ikke automatisk åpner for det Schwebs kaller *digital tekstkompetanse* (op.cit). Mens mange digitale verktøy i liten grad gjør annet enn å reprodusere tradisjonelle

tekster og arbeidsmåter (f.eks. mange presentasjonsverktøy) vil vi hevde at et verktøy som wiki er spesielt egnet for å utforske de hypertextuelle, multimodale og prosessuelle aspektene ved digital tekstskaping.

Lærere ved lærerutdanninga i Tromsø har siden 2009 gjennomført ulike undervisningsopplegg med lærerstudenter basert på *fiktive wikiunivers*. Kort fortalt er dette opplegg hvor studentene med utgangspunkt i bilder skaper fiktive personer i fiktive (men realistiske) omgivelser og skriver tekster på vegne av disse. Basert på innledende tekstbiter fra studentene bygger lærerne en infrastruktur til en wiki som studentene i fellesskap videreutvikler og supplerer med ulike web 2.0-applikasjoner. Opplegget styres til en viss grad fra lærerne på sidelinjen, men i utgangspunktet er innholdet og retningen det tar fullstendig styrt av studentenes påfunn. I det følgende skisseres rammene for et slikt undervisningsopplegg i engelsk, men slike fiktive wikiunivers kan med hell tilpasses ulike fokus, fag og kontekster. Hensikten med vår beskrivelse er å illustrere hvordan nettopp dette wikiopplegget la til rette for et virtuelt univers hvor både tradisjonelle og moderne engelskspråklige tekster fikk plass: en avisartikkel fra 1962, en tenårings ønskeliste til jul og en nekrolog. I dette universet fikk disse sin naturlige plass sammen med chattelogger, en spilleliste fra Spotify og SMS-meldinger.

Wiki: et digitalt verktøy med stort potensiale

Etter at digitale ferdigheter med *Kunnskapsløftet* (LK06) ble lansert som en grunnleggende ferdighet, har integrering av digitale verktøy i læringsarbeidet også blitt en del av språklærerens ansvar. Mange språklærere har i dag utstrakt erfaring med bruk av digitale verktøy og opplever at verktøyene både øker elevenes språklige kompetanse og skaper variasjon og motivasjon rundt læringen. Lærere har i dag et vidt spekter av digitale verktøy til rådighet som kan benyttes i undervisning. Likevel var det ingen tilfeldighet at undervisningsopplegget vi beskriver i denne artikkelen ble bygget ved hjelp av en *wiki*. Selv om wikier gjerne nevnes i samme åndedrag som andre såkalte web 2.0-verktøy, skiller de seg fra de fleste av disse på vesensforskjellige måter. Mens mange digitale verktøy i hovedsak utfører tradisjonelle oppgaver på nye og bedre måter, representerer wikier en helt ny måte å jobbe sammen på som ikke er mulig uten denne bestemte teknologien.

Kort fortalt er wiki et nettbasert samskrivingsverktøy. En wiki består av nettsider som "alle" kan redigere, uten kjennskap til HTML eller annen koding. I tillegg til ren tekst kan det legges lenker, bilder, video, lyd og et utall andre applikasjoner inn i wikien slik at den ved første øyekast kan ligne på en tradisjonell, statisk nettside. Men bak hver forside (kalt artikkelside) skjuler det seg interessante bakenforliggende sider: en redigeringside hvor endringer på hovedsiden kan gjøres; en historikkside med logg over alle endringer som

foretas og av hvem, og (som oftest) en diskusjonsside hvor framdriften av artikkelsiden kan kommenteres. Disse funksjonene finnes også på verdens største og mest kjente wiki, Wikipedia, selv om mange brukere av Wikipedia ikke kjenner til dem (Brox, 2012). I tillegg finnes et sett andre karakteristika som skiller wikien fra vanlige nettsider:

- i. *Innholdet, ikke bidragsyterne, er i fokus på en wiki.* Om det er én eller hundre bidragsytere, og hvem disse er, kommer ikke til syne med mindre man leter bevisst etter dette bak kulissene. *Hvem som har gjort hva* er i hovedsak ikke av betydning.
- ii. *Ingen eierskap knyttet til person.* Alle som har tilgang til wikien kan på lik linje redigere: legge til, fjerne, eller endre innhold - også det som er skrevet av andre. Disse endringene vil være synlige, og kan tilbakestilles, men da kun bak kulissene.
- iii. *Dynamisk og foranderlig.* En wiki kan betraktes som en samling av delvis felles skrevne, uferdige tekster i stadig utvikling og endring. En wiki er mer en prosess enn et ferdig produkt, og eksemplifiserer det Schwebs kaller prosessualitet. Wikien tillater også andre hyperlenker enn tradisjonelt oppbygde nettsider. De blå lenkene fører til neste tekst som ved ordinære nettsider. De røde lenkene, derimot, er tomme og leder til sider som ikke finnes ennå. Og med alle tomme sider på en wiki følger en invitasjon: "har du lyst til å opprette denne siden?". Wikier er altså utmerkede samarbeidsverktøy hvor deltakerne sammen kan skape en hurtig ekspanderende base for ulike typer innhold. De egner seg godt til prosessorientert skriving, til problembasert læring og ulike former for samarbeidslæring. Samtidig åpner wikien for en transparens hvor ikke bare innholdet men også selve utviklingen av tekstene kan leses og observeres.

Det finnes en rekke nettstedet som tilbyr wikier til gratis benyttelse. På disse vil den som oppretter fungere som administrator og dermed bestemme hvem som skal ha tilgang til wikien, hvilke rettigheter disse skal ha, om wikien skal ligge åpent og synlig på nettet, og så videre. Wikier har fra en rekke hold blitt framholdt som svært interessante og relevante for en rekke undervisnings- og læringssammenhenger (Lund & Smørdal, 2006; Lund m.fl. 2009; Richardson, 2010; Knobel & Lankshear, 2009).

Undervisningsopplegget "Tracy Kingston"

En gruppe tredjeårs lærerstudenter på engelsk i 1.-7.-utdanningen fikk studieåret 2012/13 stifte bekjentskap med dette undervisningsopplegget, som denne gang var av begrenset omfang på tolv undervisningstimer. Opplegget ble ikke

gjennomført som et forskningsprosjekt og var derfor ikke gjenstand for datainnsamling.¹

Studentene var på forhånd ikke kjent med hva de skulle jobbe med, annet enn at tema for øktene var “digitale verktøy i engelsk”. Vi to involverte faglærere hadde på forhånd bestemt at opplegget skulle knyttes opp mot konkrete læringsmål innenfor kulturdelen i engelskfaget, nærmere bestemt immigrasjon og multikulturalisme i Storbritannia. I tillegg til den kulturelle og historiske dimensjonen i faget ønsket vi at studentene skulle trene på skriving av tekster innen ulike sjangre i engelsk. Engelskfaget i skolen skal være både et redskapsfag og et danningsfag (Kunnskapsdepartementet, 2010, s. 38). Blant ferdighetene lærerstudenter i engelsk skal tilegne seg finner vi at de skal kunne “legge til rette for et trygt læringsmiljø med variert, differensiert og meningsfylt læringsarbeid forankret i teori og egen erfaring, som fremmer videreutviklingen av de grunnleggende ferdighetene for alle elever” (Kunnskapsdepartementet, 2010, s. 39). Gjennom arbeid med wiki vil mange av disse ferdighetene trenes; lesing, skriving, muntlige ferdigheter og digitale ferdigheter kreves og øves.

Avstanden mange skoleelever opplever mellom skolens dominerende tekster og elevenes hverdagstekster, særlig når det gjelder digitale tekster (Blikstad-Balas, 2012) kan viskes ut i en wiki. Det er for eksempel ikke urealistisk å finne en matoppskrift side om side med et kjærlighetsdikt. Slik kan tekster som ellers inngår i hver sin tekstverden (se Ohlin-Scheller, 2006) inngå i en dialogisk interaksjon. Vi benytter oss her av Olga Dysthes forklaring av Bakhtins teori om den dialogiske interaksjonen som blant annet innebærer at vi via språk kan stille meninger opp mot hverandre i en flerstemmighet: “Bakhtin er alltid opptatt av ‘forskjellighet’, men han reduserer ikke forskjelligheten til en serie av motsetninger, til et dialektisk enten-eller. Han ser alt som et dialogisk både-og som eksisterer samtidig, en ‘gjennomgripende samtidighet’ som beriker vår forståelse” (Dysthe, 1995, s. 66).

I vårt opplegg valgte vi ut et bilde (hentet fra [Flickr.com](https://www.flickr.com/photos/olga_dyste/) og merket for gjenbruk med Creative Commons-lisens) som i neste omgang skulle danne utgangspunkt for den fortellingen studentene skulle dikte fram. Bildet viser en mørkhudet jente som holder et britisk flagg i hendene, og bak henne et større jamaikansk flagg som blir holdt oppe av smilende mennesker. Bildet ble beskåret slik at jenta kom i fokus i bildet og for å minske antallet mulige tolkninger av bildet.



De innledende fasene for opplegget besto av tre trinn. Trinn én var første time, hvor studentene fikk se bildet på stort lerret. Derfra fulgte en klassisk idémyldring, ledet av lærernes spørsmål som de brukte til å skape en muntlig historie om innholdet i bildet. Ved hjelp av tavle og kritt ble studentenes idéer skrevet ned som et tankekart, delvis styrt av lærerne gjennom innledende deskriptive, denotative spørsmål: *Hva ser vi her?* Studentene gikk raskt fra det rent denotative til det kontekststilhengige, konnotative betydningsnivå (Barthes, 1994, s. 26-27). Som lærere oppfordret vi studentene til å hente ut mest mulig på det denotative planet før de spant videre på historien. Dette viste seg å bli viktig, ettersom for eksempel brillene jenta har på seg senere bidro til at hun ble gitt identitet som jusstudent, og en skikkelse som knapt kan skimtes i bakgrunnen ble til unggutten John, Tracys største beundrer. I fellesskap, og med bekreftelse via et søk på Internett, kom studentene fram til at flagget bak jenta var fra Jamaica. Derfra kom tanken om at sprinteren Usain Bolt, som tok så mange OL-medaljer i London, var fra Jamaica. Videre fant studentene ut at kanskje dette kunne være en feiring av Bolts gull i London, og sammen skapte de historien om Tracy Kingston, student og andregenerasjons innvandrere fra Jamaica.



Trinn to i prosessen fant sted i andre time og besto av samskriving på såkalte *collaborative pads* (også kjent som etherpad), et enkelt samskrivingsverktøy som tillater at flere personer skriver og redigerer på det samme dokumentet samtidig mens man chatter underveis. Ved hjelp av dette verktøyet fikk studentene i par eller grupper på tre videreutvikle hver sine biter av historien og skape mer helhetlige karakterer, med utgangspunkt i den felles idemyldringen. De bygde fortellingen sin på egen kunnskap kombinert med fakta de lette fram på nett. Tracys søsken, foreldre, venner og naboer fikk sine personligheter.

Det tredje trinnet var lærernes økt. Basert på samskrivingsdokumentene studentene hadde skapt lagde vi rammeverket for wikien, slik at den var ferdig til neste økt med studentene. Vi valgte wikiplattformen [wikidot](#) som legger til rette for stor valgfrihet i utforming og som muliggjør utbygging for viderekomne. Studentenes tekstbiter ble fordelt over en enkel infrastruktur som en slags råtekst, klar for videre redigering og utbygging. Vi fjernet alle wikiens funksjoner som ikke var strengt nødvendige for skrivingen, for å skape en mer stilren og autentisk forside uten for mye visuell støy. Mens sidemenyen ble forbeholdt fiksjonens elementer tilpasset vi toppmenyen til å romme informasjon om prosjektet og nyttige hjelpefunksjoner, slik som “liste over alle sider” og “siste endringer”.

Da plattformen var godt etablert, la vi under hver side inn lenker i form av titler til *sjangertekster* vi ønsket studentene skulle skrive. Dette var både tradisjonelle og nyere sjangre, da med utspring i det begynnende fiktive univers som studentene hadde skapt. Under siden “Tracy” la vi for eksempel tomme lenker til “Tracy’s To-Do List 1 March 2013”, “Tracy’s favourite books”, “Tracy’s Letter to the Editor (Student Newspaper)”, “Tracy’s Email to her Law Professor (asking for a one-week deadline extension)” and “Tracy’s Motivation Letter to Law School” (se skjermdump). På beundreren Johns side la vi blant annet inn forslagene “John’s diary (excerpts 2012)”, “Love poem dedicated to Tracy”, og “Post on the Michael Jackson Memorial Wall”.

Tracy Kingston

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Tracy Kingston is a 19 year old girl who lives in London with her parents, brother [Marcel](#) and sister [Molly](#). She studies law at the University of East London.

Photo by [WAVE](#)

- [Tracy's To-Do List 1 March 2013](#)
- [Tracy's favourite books](#)
- [Tracy's Letter to the Editor \(Student Newspaper\)](#)
- [Tracy's Email to her Law Professor \(asking for a one-week deadline extension\)](#)
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- [Tracy's horse](#)

Jamaican Heritage

Jamaican Sports

The Kingston Family

Grandparents

Parents

Tracy

Molly (sister)

Marcel (brother)

Friends

John

Holly

Jack

Kingston's Groceries

Sheila

Mr Lakshmi

Jonathan

Jasper

Gagan

Nabhi

Etter disse innledende trinnene var alt nå lagt til rette for utbyggingen av tekstuniverset rundt Tracy Kingston. Studentenes neste møte med Tracy og det påbegynte universet rundt henne var altså på en wiki. Her fant de igjen sine opprinnelige idéer og tekster, justert til å passe hypertekstens logikk. Ingen av studentene hadde tidligere erfaring med wiki, og de fikk derfor først en kort innføring i wikiens oppbygging, enkel koding, muligheter for sporing av historikken bak tekstene, redigering og innlegging av lenker, innhold og bilder.

Undervisningsopplegget la opp til stor grad av frihet for studentene slik at de kunne velge hvilke tekster de ønsket å jobbe med og hva de skulle skrive. De røde, uskrevne lenkene ble sakte men sikkert bygd ut, og nye lenker ble lagt til av studentene. Studentene viste stor kreativitet i møtet med det fiktive universets muligheter. En hesteinteressert student laget en lenke til Tracys egen hest, med bilde og informasjon. Tracys bror Marcel viste seg å være fan av Manchester United, i kontrast til Tracy selv som allerede hadde fått tillagt seg å være Arsenaltilhenger. Fotballinteresserte studenter hadde gitt personene samme favorittlag som dem selv, og slik så vi at wikiuniverset ga frihet til at studentene kunne skrive tekster på engelsk ut fra egne interesser. Etter prosjektet uttalte en student i sin refleksjonstekst: “The possibility to write about something you enjoy is one of the advantages of a wiki like this”.

Studentene la også inn hypertextlenker til reelle nettsider, og knyttet slik sammen fiksjon og realisme, noe som også slo an hos studentene: “One thing which I really enjoyed – you can use your imagination, but you can also connect it to real life [student points to hyperlink on the screen]... this is a link to an actual Internet store, a Jamaican grocery store ... in a way I connected it to real life” (student i refleksjonstekst).

Etter første time med skriving rommet wikien allerede mange sider og ulike tekstutkast. Likevel visste vi av erfaring at slik lystbetont skriving gjerne dabber av etter de innledende runder. For å gi ny næring til fiksjonen og skrivelysten valgte vi derfor å presentere et nytt bilde, denne gang av en ung kvinne med indisk utseende. Spørsmålene vi stilte klassen var nå: Hvem er dette? Og hva har hun med historien til Tracy å gjøre? Forslagene var mange, men gruppa entes til slutt om et troverdig narrativ: Dette var Sheila Lakshmi, en av de som søkte jobb i nettbutikken til Tracys foreldre. Og på samme måte som med Tracy fikk Sheila meislet ut sin historie, som tidligere Bollywoodstjerne fra Mumbai med en bachelorgrad i programmering, og som via en rekke omstendigheter til slutt ender som ansatt hos Kingston Groceries.

Studentene skrev korte logger etter hver økt hvor de kommenterte på hva de hadde gjort. Etter at opplegget var avsluttet og wikien ikke lenger ble utbygd, fikk studentene i oppgave å lage multimodale presentasjoner hvor de skulle beskrive prosessen og reflektere over læringsverdi og muligheter for gjenbruk og videreutvikling av opplegget. Disse presentasjonene ble delt på YouTube som obligatorisk arbeidskrav og gjort til gjenstand for vurdering.

Diskusjon

Slik det ble gjennomført i denne studentgruppen var dette undervisningsopplegget av beskjedent omfang. Tatt ut i skolen ville vi som lærere ha gjort mye annerledes, men som et opplegg for lærerstudenter var det et poeng i seg selv å ta studentene med i en refleksjon på metanivå om oppleggets muligheter og relevans. I dette tilfellet var opplegget egnet til å sette fokus på hva vi mener vil være del av framtidens krav til tekstkompetanse i engelsk: å mestre både nye og tradisjonelle teksttyper i digitale omgivelser. I vår utstrakte dagligdagse omgang med engelsk på Internett kan vi lett narres til å tro at vi kan mer engelsk enn vi kan. Slik opplegget ble gjennomført, fikk studentene oppleve at det finnes en rekke sjangre de faktisk ikke behersker særlig godt, og de fikk rom for å utforske nye typer tekster gjennom en kreativ og “leken” tilnærming som motiverte og ga mening i den sammenhengen de opptrådte.

En viktig del av framtidens tekstkompetanse vil også i større grad enn i dag være å skjønne hva de digitale omgivelsene *gjør* med teksten; for eksempel hvordan verktøyene legger føringer for hvordan vi skaper den og hvordan de virker inn på hvordan vi leser den. Dermed vil det å jobbe med tekster i stor grad

måtte handle om å produsere ulike typer tekster, å erfare hvilken rolle det visuelle spiller, hvordan hypertekst kan utnyttes og hvordan man kan jobbe prosessuelt.

Multimodalitet

Wiki er en arena der multimodalitet spiller en naturlig rolle. De fleste wikier muliggjør rike nettsider hvor man enkelt kan legge til bilder, lyd, videoer og en rekke andre applikasjoner. I norsk skole har vi lenge hatt et utvidet tekstbegrep som inkluderer former som film, musikk og muntlige uttrykk i begrepet *tekst*. Kombinasjon av to eller flere ulike uttrykksmåter kalles *multimodalitet*, og er i seg selv ikke noe nytt. Den digitale utviklingen har imidlertid gjort det enklere for både lekfolk og profesjonelle å sette sammen ulike uttrykksformer, og dermed er samspillet mellom disse enda mer aktuelt enn før.

Tekster som skaper mening med to eller flere uttrykksformer (modaliteter) eller tegn (semiotiske ressurser), som tale, skrift, bilder, farger og lyd, er multimodale (Tønnessen, 2010, s. 12). Sentralt her er altså samspillet mellom semiotiske modaliteter (Maagerø & Tønnessen, 2010). Begrepet *multimodalitet* ble introdusert av Gunther Kress og Theo van Leeuwen i 1996. Sentralt plassert i deres tankegang er at ulike modaliteter uttrykker ulike aspekter av betydning, og ved å kombinere to modaliteter, som den klassiske kombinasjonen av bilde og tekst for eksempel, vil de to samhandle, fungere ved siden av hverandre, sammen, eller mot hverandre, og produsere kompleks betydning. De norske læreplanene bruker ordet *sammensatte tekster* om multimodale tekster, et begrep som gir et fint bilde på hva det innebærer at en tekst er multimodal, og ordet *sammensatt* ble valgt i læreplanene fordi det ble oppfattet som mer kjent og tilgjengelig for skolen (Liestøl, 2006). De fleste norske fagfolk bruker de to termene synonymt (Løvland, 2011).

Forskjellige modaliteter har forskjellige styrker og begrensninger med tanke på hva de kan formidle. Dette kalles *modal affordans* (Kress & van Leeuwen, 2006, s. 232). En melodi kan uttrykke stemning mer effektivt enn ord, og har dermed en affordans som er ulik andre modaliteter. I produksjon av multimodale tekster er valget av modalitet derfor viktig, og videre i analysen av multimodale tekster er bevisstheten om affordans og kombinasjon av modaliteter avgjørende for en forståelse av helheten.

I vår wiki om Tracy Kingston var det først og fremst bilde og skrift som ble brukt som modaliteter. Det som skiller vårt undervisningsopplegg fra en del andre gode og veletablerte digitale og multimodale opplegg som poesi-montasjer (Otnes & Iversen, 2010) og digitalt fortalte historier (Normann, 2012), er at vi ikke startet med skrifttekst, men med bilde. Med de autentiske bildene skapte vi realistiske kulisser og muligheter for innlevelse og identifikasjon, mens fiksjonen skapte trygghet (i form av distanse) som gir rom for kreativitet, utfoldelse og anvendelse av engelsk. Begge fungerer som pådrivere for skrivingen. I skolen er de pedagogiske ressursene ofte tekstbøker

med oppgaver og spørsmål, og klasseromsdiskursen legger ofte opp til at læreren stiller elevene spørsmål der svaret allerede er kjent for læreren og ofte står i boka (Blikstad-Balas, 2012). Ved å bruke et bilde som utgangspunkt fikk studentene spørsmål som det ikke finnes fasitsvar på. Hvem er jenta i bildet? Hvor og når er bildet tatt? Hva er historien? Veien lå åpen for studentenes innspill basert på bildets affordans i form av bildets innhold og tomrom i bildets tekst. Bildet viste for eksempel glade mennesker med flagg, men sa ikke hvorfor. Dette tolket studentene som en sportsfeiring.

I utvelgelsen av bildet hadde vi som lærere lett etter et bilde som skulle anspore til en tekst med multikulturelt tema. Med klare symboler i form av flagg var tolkningsmulighetene snevret inn, og ved å beskjære bildets kanter ønsket vi å stramme inn meningspotensialet i bildet ytterligere. Andre valg vi som lærere gjorde, var å bruke layout som semiotisk ressurs. Wikileverandøren vi benyttet hadde et stort utvalg av ferdige maler med profesjonelt utseende layout og i tillegg muligheter for å tilpasse individualiserte varianter. Vi la vekt på at semiotiske ressurser som bakgrunn, font og layout skulle passe til nettsted som skulle fungere både som læringsarena og en realistisk wiki om Tracy. Vi valgte en rolig bakgrunn i gråtone, en mønstret men nøytral kant oppe og nede, og lot bildet som startet det hele stå i midten, med lenker på sidene og under bildet. Det at bildet ble plassert i midten er også et uttrykk for at hele wikiens univers startet med bildet.

Den dialogiske interaksjonen finner vi igjen i flere dimensjoner i dette undervisningsopplegget. I det multimodale samspillet foregår en dialogisk interaksjon, der modalitetene med sine ulike affordanser inngår i en polyfoni. Tekst og bilde forteller ulike deler av historien, og skaper til sammen mer enn hver modalitet alene. De inngår i det Maria Nikolajeva og Carole Scott (2006), i sitt analyseapparat for bildebøker, peker på som en hermeneutisk sirkel der lesingen går mellom bilde, som påvirker forståelsen av tekst, som igjen påvirker forståelsen av bildet i en potensielt uendelig prosess (s. 2). I wikien som univers inngår hypertekstens struktur i en dialogisk interaksjon der de ulike tekstuttrykkene fyller ut bildet av hva det vil si å være jamaikansk, indisk og britisk, og der spenningsforholdene mellom ulike tekster og aspekter i dette universet ikke trenger å forsones, men sammen bidrar til en hermeneutisk sirkel av forståelse av multikulturelle forhold i Storbritannia.

Hypertekstualitet

Analoge tekster er lineære eller sekvensielle, og elementene er plassert etter hverandre i en fastlagt rekkefølge. Digitale tekster kan bryte med dette og presentere innholdet etter et hypertekstuetl strukturingsprinsipp basert på *noder*. Hypertekst inneholder koplinger til andre noder og er arrangert sekvensielt. Lesemulighetene er dermed multisekvensielle; det finnes flere veier gjennom teksten og det er opp til leseren hvilken vei hun følger. Slik utfordrer hyperteksten tradisjonelle forestillinger om tekstens faste forløp (Hoem &

Schwebs, 2010). I en wiki er det lett å lage lenker som oppretter forbindelser til nye sider. Det er deltakerne selv som bestemmer hvor disse skal ligge ved å markere ord i den løpende teksten. Dermed åpnes det opp for at en wiki hurtig bygges ut i mange retninger, alt etter hvor deltakerne finner det for godt. I vårt opplegg ga vi studentene bortimot frie tøyler på skrivingen, og Tracy Kingston-universet ble også raskt et nokså kronglet univers; godt utbygd i noen retninger og bortimot tomt i andre.

Etter hvert som wikien vokste, fulgte både vi og studentene selv opp med nye tekstforslag, og her gjaldt det å holde tritt med det de andre hadde laget for å knytte nye lenker mellom sidene for å opprettholde en logisk og oversiktlig struktur. Wikier rommer som nevnt en funksjonalitet som ikke finnes i andre nettbaserte tekster: det å kunne lenke til sider som ikke finnes. Ved å markere ord som lenker forblir disse tomme til noen velger å følge dem opp. Slik signaliserer man til sine medskribenter hvilke sider man gjerne ville hatt med, men kanskje selv ikke kan skrive og slik inviteres andre til å involvere seg i nye forslag til utvidelser. Det varte ikke lenge før studentene i vårt opplegg selv laget forslag til sjangertekster som de selv eller andre kunne følge opp. Vi la raskt merke til at studentene hadde en preferanse for de sjangrene de allerede kjente. “Marcel’s Spotify Playlist”, “Molly’s Christmas Wish List”, “Molly’s Text Message to Best Friend Lissie” og “John’s Facebook Update” ble raskt skrevet ut, det samme ble “Grandma’s Favourite Recipes“, jobbannonsen “Help needed at Kingston’s Groceries” og “John’s Shopping List (Friday night)”. Studentene var ikke redde til å lete etter historisk informasjon og fakta om innvandring fra Jamaica, og skrev gode fortellende tekster. Det som viste seg mer vanskelig var de eldre sjangrene som avisartikkel fra sekstitallet og leserbrev. Disse lenkene forble røde, og altså ikke utviklet. Selv om samtlige av de involverte studentene var vel bevandret i å lese engelske tekster på nett, var de altså usikre på hvordan de skulle formulere de mer tradisjonelle teksttypene. I en annen sammenheng, som for eksempel med yngre elever, ville vi som lærere styrt prosessen mer, og ledet elevene mot å søke opp autentiske tekster som kunne fungere som modell for tekstene de selv jobbet med. I dette opplegget lot vi wikien utvikle seg fritt i de retninger studentene tok den, noe som altså gjorde den både innholdsmessig spennende og krevende.

Wikiens hypertextuelle natur gjør den til et godt verktøy i skriveprosjekter. Samtidig er det utfordrende om man som lærer forventer kontroll og oversikt i prosessen. Det er vanskelig å vite helt hvilke retninger skrivingen tar og hvilke deler som vil bli utbygd. Mange som har forsøkt wiki i undervisnings-sammenheng har nok latt seg frustrere av nettopp dette. Ironisk nok kan for mye inngripen og forsøk på å styre prosessen virke kontraproduktivt, som om wikiens nærmest organiske natur vokser best når den får vokse fritt.

Prosessualitet

Til tross for et åpenbart stort potensiale og mange bruksområder har ikke wikier hatt overveldende suksess verken i skolen eller hos befolkningen for øvrig. En grunn kan være, som Michelle Knobel og Colin Lankshear (2009) påpeker, at behovet for å mestre koding for å skrive på en wiki gjør at wikiens potensial ikke utnyttes bedre verken i skole eller høyere utdanning. Selv om redigering på de fleste wikier har blitt betraktelig enklere de siste årene, skiller wikier seg fortsatt fra andre web 2.0-verktøy med at man faktisk må forholde seg til kodene bak den synlige teksten. En annen og kanskje viktigere grunn til wikiens manglende popularitet er at den ikke helt passer inn i dagens skole. Et velkjent slagord i norsk skole har vært at “pedagogikken er viktigst – teknologien må tilpasses deretter”. En slik posisjon er forståelig som et forsvar mot den teknologiske invasjon som skolen har vært utsatt for de siste år. Samtidig overser den et viktig poeng: De ulike digitale verktøyene er ikke bare redskap for å utføre ferdig definerte oppgaver eller formidle bestemte innhold. Som Roger Säljö (2010) påpeker: “Digital technology is not primarily a teaching and learning device functioning, (...) as an ‘independent variable’ that can be introduced to boost learning and performance levels in the systems as it exists (...)” (s. 56). Selve verktøyet legger føringer både for det innhold som formidles, hvordan det formidles og for selve arbeidsprosessen. “Digitale verktøy” rommer et stort spekter som inviterer til ulik grad av brukermedvirkning og innflytelse (Hoem & Schwebs, 2010). Mens noen av verktøyene kan sies å representere lite nytt og derfor lett lar seg implementere i eksisterende praksis, kan funksjonalitetene som ligger i et redskap som wiki belyse Säljös poeng. Å utnytte disse til fulle kan involvere nokså store utfordringer for tradisjonell undervisningspraksis. I en artikkel av Lund, Smørdal og Rasmussen (2009) brukte en av lærerne i et wikiprosjekt følgende ord da hun i etterkant ble intervjuet om sine opplevelser med wikien: “...There is no space for the teacher... everything is moving...it is so extensive...don’t know what is the end product... it’s difficult for me to be the knowledge provider...I don’t know what I should assess...” (s. 218). Ordene belyser godt noen av utfordringene som ligger i motsetningene mellom lærerens etablerte rolle og de arbeidsformene som wikien åpner opp for. Studentene i vårt undervisningsopplegg uttrykte liknende betenkeligheter: “I think especially young pupils must have criterions ... without clarity it can quickly end up as uncommitted chaos ... there must be structure where the goal should be” (fra refleksjonstekst). Slike utfordringer pekes også på i andre studier (bl.a. Lund & Smørdal, 2006, Log & Øgrim, 2014).

Det som gjør wikier såpass u håndterlige er nettopp det prosessuelle ved dem. Wikiens tekster er uferdige og flyktige, og kolliderer derfor med etablerte praksiser og forståelser i skolen i den grad at “... the most important institutional contract is perceived as being jeopardized by the wiki” (Lund m.fl., 2009, s.218). Dagens lærere opererer i et system som vektlegger individuelle og

statiske produkter. For hvordan skal man egentlig vurdere tekster som aldri blir ferdige, som er kollektivt skapte og som stadig endrer seg? Og hvordan vurdere enkeltelevens bidrag i en kollektiv prosess? Hvordan i det hele tatt følge han eller henne? I den nevnte studien var løsningen å tilpasse teknologien slik at det bedre kunne møte lærerens behov og bekymringer. Dataingeniøren la til nye funksjonaliteter, bl.a. for bedre å kunne følge med på enkeltelevens bidrag, og en problematisk teknologi ble dermed gjort mindre problematisk. En kan jo likevel spørre seg om dette er veien å gå, og om ikke wikien på denne måten ble omskapt til nok et digitalt verktøy som – nettopp fordi det ikke utfordrer eller endrer praksiser – er underholdende en stund, men fort legges bort. For hva skal man egentlig med digitale verktøy som ikke bringer merverdi inn i undervisningen? En slik løsning vil ikke være hensiktsmessig med tanke på morgendagens lærere og de kompetansekravene elevene kommer til å stilles ovenfor i voksenlivet.

En bedre tilnærming vil være å tilpasse læringsarbeidet til wikiens prosessuelle karakter. Det innebærer dermed å godta at tekster kan være uferdige, selv om de er “publiserte” (jf. artiklene på Wikipedia). Det betyr også å se på skriving som noe mellom de to hovedtypene av skriving: *skrivning for å tenke og lære* og *skrivning for å kommunisere* (Dysthe, 1995) og som både prosess og produkt. Når det gjelder oppgavetyper må disse være av en art som oppfordrer til kollektive heller enn individuelle bidrag. Studenter og elever må få muligheten til å erfare hensikten med å skrive på en wiki. Oppgavetyperne må speile dette, enten ved at oppgavene simpelthen ikke *kan* løses individuelt eller at de i så fall ikke kan løses på like fruktbare og givende måter som når man skriver sammen.

Samskriving trenger ikke bety at man skriver “oppå hverandre” i én og samme tekst. De fleste har en naturlig motstand mot å rette på det andre har skrevet, og vissheten om at det man selv skriver skal rettes på av andre kan virke hemmende for skrivingen. Med mindre det gis spesiell instruks om å endre hverandres tekster vil deltakerne i stor grad unngå å gjøre dette. Samskriving kan også være som i dette opplegget, at man skriver hver sine tekster som knyttes sammen i et større nettverk, hvor selve historien om Tracy Kingston fungerte som en samlende ramme for gruppen. Selv om denne historien manglet et kronologisk hendelsesforløp, kunne enkeltdeltakerne utvikle personer, steder og sidehistorier som løp parallelt, delvis knyttet til hverandre, men alle som biter i en større helhet. Slik fungerte samskrivingen motiverende heller enn hemmende

Studentene i Tracy Kingston-wikien fikk individuelle vurderinger, selv om wikien var kollektivt produsert. Et viktig poeng her er at det ikke var bidragene på selve wikien som ble gjenstand for vurdering, men studentenes *refleksjon* omkring prosessen i form av en multimodal presentasjon som ble laget i etterkant og levert som et obligatorisk arbeidskrav (se litteraturliste for to eksempler på slike refleksjonstekster). Det var viktig at studentene fra starten av

var klar over hva som ble vurdert, slik at tanken på vurdering ikke la en demper på skrivegleden og kreativiteten. Å våge å endre på andres tekstbidrag og å tåle at andre endrer ens eget er en forutsetning for at en wiki skal bli vellykket.

Konklusjon og oppsummering

Det er vanskelig å spå om framtiden og hvilke tekstferdigheter i skolefaget engelsk som vil kreves framover. Men en ting er sikkert: Det faktum at flere og flere av tekstene vi omgir oss med har blitt digitale og nettbaserte fordrer nye ferdigheter og strategier. Eksempel på dette kan være å kunne tolke og skape tekster med sammensatte modaliteter, kunne utnytte hypertekstens struktur og å kunne samarbeide om tekstsaking som prosess på tvers av tid og rom.

Engelsk har for lengst etablert sin posisjon som selve “onlinespråket” og mye av barn og unges uformelle engelsklæring skjer via nettet. Det er likevel et begrenset utvalg teksttyper som leses og skrives på engelsk i nettbaserte omgivelser. Engelskundervisningen i skolen og i lærerutdanningen bør derfor ha som mål å arbeide med tekster som representerer tradisjonelle teksttyper og sjangre samtidig som de utnytter digitale formater og de mulighetene som ligger i teknologiens varierende grensesnitt.

Vi har argumentert for at å utdanne engelsklærere for framtida blant annet kan være å iverksette opplegg som ivaretar tradisjonelle fagkompetanser samtidig som de åpner opp for nye måter å skape og organisere faginnholdet på. Vi har vist et eksempel på hvordan dette kan gjennomføres gjennom et undervisningsopplegg med lærerstudenter i engelsk. Undervisningsopplegget, som i dette eksemplet ble til wikien “Tracy Kingston”, kan betraktes som *en ramme for utforskning* av fag, teknologi og pedagogiske muligheter; ikke låst til et bestemt faginnhold eller teknologisk programvare, men fleksibelt nok til å utruste studentene med *overførbare* ferdigheter, hvor de kan finne sine egne veier og bruksområder til deres egen, framtidige undervisning.

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Eksempler på studentenes refleksjonstekster (oppgitt med tillatelse):

Bendik Tunset: <http://bit.ly/1minAnz>

Kai Ante Hætta: <http://bit.ly/1sBmw30>

¹ I det følgende presenteres ikke systematisk innhentede funn som sådan men en beskrivelse av et praktisk undervisningsopplegg. Opplegget er en forkortet variant av et liknende samskrivingsprosjekt gjennomført i en norskklasse ved samme institusjon høsten 2012 som en del av et pågående doktorgradsarbeid (Hilde Brox: *Collaborative writing: Knowledge Building, Literacy, and New Technologies in Teacher's Education*). I dette prosjektet ble det lagt opp innsamling av et bredt spekter av ulike data, som analyse av wikiens historikk, deltakende observasjon, feltnotater, studentlogger, refleksjonstekster og kvalitative intervju.

Article 2

RESEARCH

A Design-Oriented Analysis of Multimodality in English as a Foreign Language

Ingrid Karoline Jakobsen* and Elise Seip Tønnessen†

This empirical article investigates multimodality in English as a foreign language, both as seen in the use of multimodal texts as artefacts and pedagogical texts for learning, and through an analysis of the multimodal learning designs. We present observations from a year 10 classroom in Norway that worked with the novel *The Absolutely True Diary of a Part-Time Indian* (Alexie, 2007). We explore a four-week teaching sequence, asking how different modes were involved when the educator designed literacy events around the novel, and how multimodality is present in the students' meaning making. Our aim is to make explicit and discuss some of the silent literacy practices in English teaching at lower secondary level in Norwegian schools.

Keywords: English; EFL; multimodal texts; learning design; multimodal literacy; timescales

Introduction and Background

This article takes its starting point in the joint understanding, of multimodal social semiotics and design-oriented didactics, that learning can be understood as a social, meaning-making process. This entails modes other than written and spoken language playing important roles in students' learning in school, even in language learning. The 'multimodal turn', in which attention is focused on the interplay between modes, opens up new ways of understanding the designs of classroom activity (Kress, 2003; Kress and van Leeuwen, 2006; Mills, 2010). These phenomena are not new, but our ways of thinking about them are changing or 'turning' (Jewitt, 2014a, pp. 3–4) towards giving attention to modes beyond verbal language.

English as a school subject has a tradition of using visual modes in both first language teaching (Jewitt, 2014a) and second language teaching (Jakobsen, 2015; Skjelbred et al., 2017). Previous research has shown an increase in the use of images in textbooks (Bezemer and Kress, 2009). Furthermore, over recent decades, the written page has developed from a verbal to a visual unit (Baldry and Thibault, 2006; Bezemer and Kress, 2010). The visually organized one-spread layout in textbooks demands an active reader to create coherence and reading paths (Bezemer and Kress, 2009). English taught as a foreign language (EFL) or second language (L2/ESL) in Norway (where the two terms tend to be used interchangeably

(see e.g. Rokenes, 2016)), has a long tradition of using multimodal resources and activities for learning, ranging from textbooks to film, music and drama (Maagero and Simonsen, 2006; Scott and Ytreberg, 1990; Simensen, 2007). Multimodality is thus inherent in the English subject in Norway, though not an explicit part of the English subject curriculum.

Over the past decade, multimodality as a concept has been gradually introduced into curricula in several countries, most notably in Australia (Unsworth, 2014; Walsh, 2010), the UK (Matthewman, Blight, and Davies, 2004), and the Scandinavian countries (Christensen, 2016; Løvland, 2006; Tønnessen, 2010), and, importantly, in the mother tongue or first language subject (L1). Norway was the first Scandinavian country to introduce multimodal texts into school curricula in 2006, with Sweden and Denmark following in 2011 and 2014, respectively, according to Christensen (2016).

Much of the research on English and multimodality in school takes place in environments where English is the majority language (e.g. Jewitt, 2006; Kress et al., 2005; Rowsell & Walsh, 2011). A call for research into reading and the production of multimodal texts in the English subject in Norway was made in 2012 by Skulstad (Skulstad, 2012). As far as we know, hardly anybody has explicitly answered her call. Maagero and Tønnessen (2014) have devoted one chapter to multimodality in language learning in their book on multimodal literacy and include examples from English. Birketveit (2015) and Birketveit and Rimmereide (2017) have researched the use of picture books for ESL, and Ørevik (2015) has researched the use of remediation from book to screen. Lund (2016) and Waallann Brown and Habegger-Conti (2017) have examined the way indigenous cultures are visually presented in English textbooks

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in Norway. Otherwise, we need to turn our gaze outside Norway, to find research on multimodality in English classrooms.

In order to find out more about the role of multimodality in the EFL classroom's literacy practices, this case study looks at literacy events and asks the following questions: In what way does multimodality come into play, firstly, in the teacher's designs for learning, including her choice of learning materials, and, secondly, in the students' design in learning? Our aim is to make use of multimodal design-oriented theory to examine and discuss some of the silent literacy practices in EFL at the lower secondary level of Norwegian schooling¹.

Theory and Analytical Lenses

This section gives an overview of our use of the concepts of multimodality, literacy and design, which are perspectives that we find to be particularly relevant for discussing language learning in modern classrooms. In foreign language learning, verbal language (listening, speaking, reading and writing) is both the means and the objective of learning. Consequently, skeptics might ask whether semiotic resources other than verbal ones are relevant. However, learning a language is also about gaining communicative competence and learning about cultures, history and texts. This is apparent in the way language studies are usually structured in three dimensions: linguistics, literature and culture (Brøgger, 1986; Kramsch, 1995; Rindal, 2014; Udir, 2013). Theoretically, this connection between language and culture can be underpinned by a basic understanding of language as *functional*, as we find it in social semiotics, where Halliday states: 'Every actual instance of linguistic interaction has meaning not only in particular but also in general, as an expression of the social system' (1975, p. 80). It follows from this that linguistic resources for meaning making will always be understood as part of a context, and that other modes of communication, such as images (still or live), music and sound, may provide a supporting or even defining context to the learning of verbal language. Furthermore, modes other than spoken and written language can convey curriculum content knowledge. In the following, there will be examples of how an English teacher uses photos and the multiple modes of video to show a Spokane Indian pow-wow and the North-West Washington landscape. The process and outcome of language education thus includes a lot more than mastery of oral and written language.

Multimodality

Multimodality involves the use of several semiotic modes in communication (Kress & van Leeuwen, 2001, p. 20). We understand *mode* as defined by Gunther Kress: 'Mode is a socially shaped and culturally given resource for making meaning' (Kress, 2014, p. 60). This entails that modes are used with a certain regularity, developed within a community, and that modes are characterized by their *affordances*, that is their 'potentials and constraints for making meaning' (Bezemer & Kress, 2016, p. 23). The affordances of modes enable semiotic work (Kress, 2014, p. 62), drawing on the materiality of the mode as well

as the cultural shaping and reshaping of the mode. The semiotic work of making meaning is closely connected to learning, which involves engaging with the world through resources for making meaning (Bezemer & Kress 2016). Modes appear in ensembles, and the way we combine modes into ensembles, e.g. of words, images and layout in school textbooks, is in itself shaped through social practices. In a mediatised world, one example would be the media that organize multimodal communication, such as film/video.

Our understanding of multimodality is based within the theoretical framework of social semiotics. Jewitt has outlined four assumptions that are common to the many different approaches to multimodality. These are, firstly, that 'language is part of a multimodal ensemble' and 'that representation and communication always draw on a multiplicity of modes ...' (Jewitt, 2014b, p. 15). Secondly, in such an ensemble, every single mode communicates in a distinct way 'shaped through their cultural, historical and social uses' (2014b, p. 16). The third assumption is particularly important for this article: 'people orchestrate meaning through their selection and configuration of modes. Thus the interaction between modes is significant for meaning-making' (2014b, p. 16). Jewitt's fourth point is the *social*, which means that the meanings of signs are 'shaped by the norms and rules operating at the moment of sign-making, influenced by the interest and motivation of [the] sign-maker in a specific social context' (p. 17). All in all, multimodal social semiotics gives us tools to speak about the classroom context and the interests and practices of teachers and students, and to take seriously the range of modes used in communication in school (Bezemer and Kress, 2016).

Literacy

The concept of literacy, which has traditionally been understood as the ability to read and write, has been expanded in New Literacy Studies to involve other modes of communication (New London Group, 1996; Jewitt & Kress, 2003; Rowsell et al., 2013). In line with the functional view on language in social semiotics, New Literacy Studies understand literacy as a social practice, situated in specific situations and in a cultural context. In recent discussions about multimodal literacy, one might differentiate between bottom-up perspectives that focus on what it takes to master a mode, analyzing one mode at a time (Kress, 2003, p. 23), and top-down perspectives focusing on what it takes to interpret the multimodal ensemble as a whole (Danielsson and Selander, 2016; Walsh, 2010; Yi, 2014). In our study of classroom practice, we find it fruitful to conceive of *literacy* in line with Jewitt's understanding that the reality of meaning making involves taking the multimodal design as a whole into consideration. Jewitt states that:

The static notion of literacy as the acquisition of sets of competencies can be replaced with a notion of literacy as a dynamic process through which students use and transform the multimodal signs and design new meanings. (Jewitt, 2006, p. 135)

Literacy practices are realized in literacy events, which can be observed as concrete phenomena. The term *literacy event* underlines an understanding of literacy as situated in a specific space and time, and that the meaning making that is taking place must be understood as part of this situation: 'literacy is best understood as a set of social practices; these are observable in events which are mediated by written texts' (Barton & Hamilton, 2000, p. 9).² In classroom practices, literacy events are mainly staged by the teacher, and they tend to come in sequences, in which the outcome of one event may initiate the next. In the English classroom, literacy events are designed to create situations that entail listening and speaking, reading and writing English, and often at the same time learning about cultures where English is spoken. One type of literacy event that is well known to the English classroom is reading literature. In this article we examine literacy events in which a work of fiction is at the center. The literary text provides a world of its own, which the reader can enter, explore and engage in, a totality that provides a shared context for engaging in language. The literary text is a text designed for aesthetic experience (Sorbo, 2003). When it is taken into the classroom, a didactic dimension is added. At the same time, the aesthetic dimension may contribute meaning in terms of emotional engagement and motivation (Tornby, 2013).

Design

The New London Group called for a broadened understanding of literacy to cater for 'the increasing multiplicity and integration of significant modes of meaning-making' and 'as a way to focus on the realities of increasing local diversity and global connectedness' (New London Group, 1996, p. 64). Design is a central concept in this pedagogy of multiliteracies. It is used for semiotic activity in the process of producing and consuming texts. The point is to emphasize that 'meaning making is an active and dynamic process, and not something governed by static rules'. The process includes three elements: 'Available designs, Designing and the Redesigned' (1996, p. 74). From its starting point in 'available design', the designing activity results in an outcome, 'the redesigned', representing a new meaning: 'The Redesigned is founded on historically and culturally received patterns of meaning. At the same time, it is a unique product of human agency: a transformed meaning' (1996, p. 76). The manifesto also points out that teachers are designers of learning processes (1996, p. 73).

This understanding has been taken one step further by Selander and Kress (2010, p. 24), who distinguish between *design for learning* and *design in learning*. *Design for learning* happens on many levels, framed by national curricula, local planning and infrastructure in schools. One could say that this represents the available design for the teacher when planning the lesson in the classroom. This design is met by the students' *design in learning*, that is how the individual student realizes his/her interests within the cultural setting (Selander and Kress, 2010, p. 97). In our context, this is seen in the way the students choose to carry out the tasks given by the teacher. In this article, we

have chosen to focus on one of these tasks, to highlight the relations between designs *for* and *in* learning.

Selander and Kress include a third dimension to their model of learning designs, and that is *assessment*. This will only be touched upon indirectly in this article, since some of the student tasks are part of the formal assessment, and others are not.

Finally, a design perspective on the activities going on in the classroom includes, on the one hand, a socio-cultural framing that teacher and students may have more or less in common and, on the other hand, the previous experiences and personal interests of teachers as well as students. Design and redesign happen on several levels in the classroom investigated in our study: in the choice of literary text, in the staging of reading, interpreting and discussing the text, and in the cultural norms and practices surrounding school learning. These levels may be understood as different timescales or activity scales, where exchanges on a higher level form the context for exchanges on a more detailed level. Together, the system of scales constitutes a cultural pattern or social semiotic formation (Lemke, 2000, p. 276). In our observations, the choice of literary text to work with represents one scale, a realization of aims and objectives in the curriculum on the scale above, and, at the same time, always relating to the activities included in the didactic design on the scale below, as will be explained as a model of interacting cog-wheels below.

Methods

Context, sampling and data

This study adopted an ethnographic approach, and what we present here is a single-case study (Creswell, 2013). A case study is 'a study that investigates a contemporary phenomenon in depth and within its real-life context' (Yin, 2014, p. 237). Selection of this school and this class was based on *purposeful sampling* (Creswell, 2013), in the sense that one of the researchers had previously performed a research project at the school and was familiar with the setting. It was stressed that the teacher was not to change her plans or make adaptations for the researcher, who would take the role as nonparticipant observer. Chance would have it that the researcher had donated a class set of a novel as a gift of thanks to the school for research participation. It turned out that this same novel, now five years later, was on the plan for the period the researcher came to make observations. As researchers, this makes us more closely associated with the literacy practice we study. We, nevertheless, take an observer's perspective.

Data was collected over four weeks in one class during English lessons that concentrated on this novel. It was a class of 14 students, aged 15 to 16 years. All the students and the teacher gave informed consent to observation, and 11 students agreed to share their written assignment. All names used are pseudonyms. The study has been approved by the Norwegian Centre for Research Data.

This small-scale qualitative study looks at one teacher's design for work with a full novel and one particular form of response from the students. This gives the opportunity to study in depth the interplay of modes in certain literacy

events, although it gives limited information about more general multimodal literacy practices in English classes here and elsewhere in Norway. Despite these limitations, by approaching this class, we can begin to understand literary reading in lower secondary school English from a multimodal design-oriented perspective. One area in which this school differs from many others in Norway is the fact that it includes extensive reading of literature in both the Norwegian subject and the English subject; a study by Penne (2013) has shown that a large number of Norwegian students leave lower secondary school having read only excerpts from novels.

Observation and field notes, together with collected printed material and student products, form the basis for analysis in this article. By looking at the literacy events as they unfolded, in addition to the printed static texts that form the basis for literacy events, we gain a better idea of the overall literacy practice of the class. At the end of the observation period, interviews were conducted with three pairs of students and, finally, with their teacher. The audio-recorded interviews add important perspectives to the analysis concerning the motivation behind choices made in designs *for* and *in* learning.

The analysis has been structured according to three activity scales (Lemke, 2000): The novel is fundamental to the lesson sequence and, hence, is presented first in the analysis section. The sequence of lessons is analyzed at the next level of activities, designed by the teacher (Diana) to inform, motivate and activate the students' interpretations of the literary text. Finally, at a more detailed level, we analyze one particular case of students' responses to the written assignment, paying attention to the use and function of images.

Analysis

The novel

Sherman Alexie's young adult novel *The Absolutely True Diary of a Part-time Indian* (2007) is a distinctively multimodal text that describes Native Americans in a non-sentimental and nuanced way. In addition to troubles any teen can recognize, the novel deals with sensitive issues like identity, racism, poverty, death, and alcoholism, all told with disarming humor. Fourteen-year-old Arnold portrays his experiences of growing up on the Spokane Indian reservation in Washington. Seeing little future on 'the rez', he changes schools to attend an all-white school. Excerpts from the novel made up part of the 2014 national year 10 examination in English in Norway, although the novel has been on the list of banned books in libraries in the US.

In terms of genre and form, the novel comes close to the students' out-of-school textual world. This is potentially important both in light of motivation for reading and in the analysis of how the students design their multimodal texts. The extensive exposure to English through popular media for Norwegian students was documented in a comparison of the role of out-of-school exposure to English for upper secondary students in Norway and Poland, by Aniol (2011). The novel combines doodle-styled images and first-person narrative in writing. It was published in the same year as the first of the *Diary of a Wimpy Kid* series

by Jeff Kinney, the novel that marks the beginning of a wave of graphic or cartoon-like fictional diaries of young adults, which has surged over us this past decade and is familiar to students. In contrast to these, *The Absolutely True Diary of a Part-time Indian* is a stand-alone novel and not a series, and the book comes close to being an autobiography, which amplifies the impact of the social and cultural portrait. The novel's form and content mean it is a text that can potentially 'provide this imaginative leap that will enable learners to imagine cultures different from their own' (Kramsch, 1995, p. 85).

Graphic novels make use of several modes, especially verbal and visual, and are multimodal texts, in which image and writing interact. Whether this novel really is a *graphic novel* depends upon the width of definition. The primary narrative in *The Absolutely True Diary* is carried by the words, making *illustrated novel* a fair label. However, the 60 or so illustrations in this 230-page novel do more than illustrate. The images vary according to the mood of the narrator. When he has time to draw with detail, and probably feels calm, the images are soft pencil drawings. Then, when he is emotional, this is reflected in bolder (perhaps felt pen) lines and scribbled drawings. The fictional first-person narrator tells us they are his own drawings and that they are significant as a means of expression for him:

I draw because words are too unpredictable. I draw because words are too limited... I draw because I feel like it might be my only real chance to escape the reservation. I think the world is a series of broken dams and floods, and my cartoons are tiny little lifeboats. (Alexie, 2007, pp. 5–6)

Verbal text thus reinforces the images' legitimacy as a mode to be, in the words of the young narrator, 'taken seriously' (Alexie, 2007, p. 95). The drawings convey meaning by themselves, as well as in the multimodal ensemble of the book.

While cartoons and illustrated novels were previously looked (down) upon as stepping stones to more canonical or classic text-based literature (Krashen, 2004), graphic novels, comics, and other multimodal texts are now gaining ground in Norwegian literature, as well as in education.³ In recent Norwegian textbooks for pre-service English teachers, graphic novels are promoted (e.g. Wiland, 2016, pp. 153–158). They are depicted as giving the opportunity to teach decoding skills for images and verbal expressions together as 'a necessary literacy skill' (Rimmereide, 2013, p. 131). We will show, however, that, rather than focusing on the ability to read the multimodal ensemble, Diana states other reasons for using this multimodal text.

Overview of the teacher's design

Diana's design for working with the novel *The Absolutely True Diary of a Part-Time Indian* is expressed in a lesson plan that includes specific activities for each lesson, curricular goals, and directions for how to reach them in the form of assessment criteria. Each student received the lesson plan and a copy of the novel before their Christmas

holiday, making it possible to read and study during their holidays. The lesson plan extended over seven hour-long lessons and included several bouts of silent individual reading and one traditional lecture by the teacher (including a PowerPoint presentation with video embedded); students also had to keep an individual written reading log and devise questions and answers for a Kahoot quiz played in class; the plan ended with one written and one oral product for assessment. Time for reading and writing was given in class, as well as for homework. Writing was done primarily on individual laptops provided by the school, but some students wrote their logs by hand.

Oral and written products form the basis for grade-giving assessment in the teacher's design. For the oral activity, the teacher changed her design from individual presentations with PowerPoint to a shared discussion, called a *subject conversation*. This is a dialogue about the novel, led by the teacher, commonly organized with everyone in a circle of chairs. It is a teaching method often used in the subject Norwegian to talk about literature. Diana said in the interview that she changed over to this strategy in order to prepare the students for their final examination in English.

Overview of the students' design

From the students' perspective, extensive reading as part of English was not new. In each of the three years of lower secondary school, they read a full novel in both Norwegian and English. Students expressed by their body postures, and confirmed in interviews, that they found it demanding to read a whole novel, though the reading was more enjoyable for them than writing a log. The students were very positive about the oral activities in the form of a Kahoot quiz and the subject conversation, the latter being a learning activity they had only made use of in Norwegian classes. All the students handed in a written assignment; as researchers, we were given permission to read and keep copies of 11 of them, before the teacher wrote her feed forward and graded them.

Out of this sample of 11 papers, three students chose a task that specifically asked them to discuss the images in the novel. The remaining eight papers were evenly distributed between two other tasks, which asked them to write a text about the reading experience or a book report, respectively.

The students wrote texts of varying length, from half a page to just over three full pages. Two typewritten pages were required. Seven out of 11 students used images in their texts, four of them in response to tasks designed by the teacher for traditional written texts.

Design for learning

The teacher's design for learning pivots around a multimodal text, and the design of the teaching sequence itself can also be considered a multimodal text (Boeriis and Nørgaard, 2015). In the model in **Figure 1**, the cogwheels represent the main literacy events designed by the teacher to create a good learning environment for the shared reading of the novel. The cogwheels' shapes and arrows are, for us, an apt representation of the complex interaction

happening in the classroom on the medium level of activities, with each part shaping and continuously reshaping the students' learning. The teacher's design aims to direct the students' interest and aid their comprehension of both language and content in the novel as a whole. In their design in learning, each student will turn each cogwheel differently; that is, they will respond differently to each literacy event, which affects their understandings of other cogwheels, even the past ones, and thus the sequence as a whole. New turnings of the cogwheels will, in other words, affect the foregone understanding built up by other cogwheels.

We have chosen to highlight the following artefacts and associated activities in our model: the novel (1), along with the lesson plan with the concomitant assessment criteria (2) symbolically on top and representing a timescale running across the whole period. These two are also placed as cogwheels inside the second timescale, with the teacher's lecture (3), the individual student reading logs (4), the written assignment (5), the teacher when she interacts and helps students while they are writing on their laptops (6), and the subject conversation (7).

Diana's design for learning is closely linked to student motivation. Extensive reading is firmly recognized as an effective pedagogy for second language learning (Elley, 1991; Mason and Krashen, 1997) and is a recommended strategy in Norwegian EFL didactics (Hellekjær, 2008). Motivation for extensive reading is a different matter. Knowing her class well, it is not surprising that the teacher is concerned with motivation and with creating conditions for mastery. Her design, which we interpret as a multimodal design for learning, is directed at these challenges:

I use both visual and auditory approaches so that [the students] see it in various ways, and for me it is about motivation and different learning styles. I do use mostly printed text, but I often support it, almost always, I would say, with pictures or sound. (Diana)

In other words, Diana's multimodal design for learning is not primarily aimed at developing multimodal literacy skills. Rather, she endeavors to motivate, and she uses a range of modes to accommodate a variety of what she calls learning styles. Her principal aims are shaped by curricular aims, namely mastering verbal language and content knowledge.

A respect for each individual student's opinion and interpretation of literature is at the backbone of Diana's classes. In her teaching and in interviews, she expresses unambiguously that each student is offered the right to have his or her own response to the novel. This is her way of navigating the tension between her own wish and curricular obligation to foster a joy of reading (Udir, 2013, pp. 2–3) and her desire to simultaneously give agency to her students, including those who have a negative attitude to reading literature or to the subject.

Spatial organization in the classroom is a design little used by this teacher, making the exception all the more



Figure 1: Cogwheel model of the sequence of literacy events designed for reading the novel (adapted from Jakobsen, 2016). The numbers are explained in the main text. Photos: Colourbox.com and the authors' own.

visible when she organizes the subject conversation as a circle in the middle of the room. Normally, and across subjects, the students are seated in rows, with individual desks facing the teacher's desk at the front. Diana specifically uses spatial organization to help overcome some of the affective filters of the students and to create a more engaging atmosphere:

I believe that when we sit so closely together, not too close, but close and without anything between us, so it feels safer, more intimate, safer, so they dare to open up, it becomes, um..., they forget in a way that it is an assessment situation. And then they forget to think about pronunciation and whether they pronounce correctly, because they really want to contribute. (Diana)

Diana's statement shows the duality of form and content that makes the English subject so complex (Rindal, 2014, p. 2). The conversation is a learning activity, as well as an assessment situation, and it is better to contribute something in imperfect English than to remain silent. Diana is very conscious of working to prepare her students for the final examinations; she balances wide curricular learning goals with examination demands:

... we need to master the subject conversation form; for that conversation, it is the exam we work towards. But also, if you put away the pressures of grades and exams and concentrate on learning, I find that the subject conversation means they help each other grow. The communication between them makes them think of other aspects, and it becomes more of a natural setting. (Diana)

During their subject conversation, the students were encouraged to talk about the same topics as those they had written about in their assignments, as Diana thinks this will make it easier for them to speak. In this sense, the conversation was more of a prepared talk than a spontaneous discussion. Still, the learning potential, not just for the speaker but also for the listener, is evident, and the conversation makes for co-construction of meaning (Kress and Burn, 2005). Student Martin writes in his assignment:

Almost everyone [in] the world think it is boring to read for a test, homework or whatever that have something whit school to do. ... it is something you need to read and learn to get a good grade. [In our] School you learn more about the book and the [writer]. The reason is because they have "fagsamtale" [subject conversation] where everyone can listen what they know about the book and the writher. Also they that have not read the book. I recommend this kind of studying. you doesn't learned only some "boring" tings" [original spelling]. (Martin)

In the lesson sequence as a whole, the multimodal interplay can be seen partly within each cogwheel (activity) and partly between the cogwheels. The teacher's presentation (3) may serve as an example of modal density (Norris 2014, p. 90), with its combination of printed text, image and film clips, and her voice, gestures, and words; all modes combine into a unity for understanding the novel in a broader perspective. In other cases, the modal interplay comes in sequences, for instance when the students talk about the novel in the subject conversation (7) in response to reading the words and studying the images. The semiotic work

of articulating their thoughts is seen as an expression of learning (Bezemer & Kress, 2016). The individual task of reading a novel is scaffolded by whole-class activities, as well as individual tasks activating different modes.

Design in learning: written assignment

In the students' design *in* learning, time was largely devoted to the written text assignment and preparation for the subject conversation, which were both graded. This reminds us that designs for and in learning are inextricably connected by the third element of pedagogical design: assessment (Selander & Kress, 2010). In the following, we will look more closely into how the students make meaning from the novel in their written assignments. Our focus will be on how their texts may be inspired by the available design, and we look specifically at the role of images in texts produced within the literacy practices of language learning.

The design for learning has a multimodal text at its core, and one of the writing tasks poses questions about the role of the images in relation to the written narrative. In the design *in* learning this has probably had an effect on what the students see as useful modes in their own texts. Half of the students who did not write about images still used images in their texts. In our analysis we will focus specifically on the assignments responding to the task in which students are asked to express in words what they read from the images. As mentioned (see **Table 1**), three students wrote about the images in *The Absolutely True Diary of a Part-Time Indian*. They had the following three questions to guide them: 'What can we see? What does it reveal about the character(s) in the novel? How does it influence your reading of the book?'

One of the three papers about the images in the novel does not include the drawings it discusses. Sander has added an image of the novel's front page but otherwise refers to the page numbers where his chosen images are. His text is mainly descriptive, but he concludes by relating the first image that interested him to the overall theme of the novel: 'I think the author drew this picture because good grades in the school was [Arnold's] ticket out of the rez'. Moreover, Sander comments on how the novel's direct style and pictures appealed to him: 'I chose this picture because I have thoughts like [Arnold's]. I too have big dreams...'

Table 1: Overview of student choice of written tasks and multimodal design.

Teacher's design	Students' design		
	Number of students	Verbal response	Verbal and image response
Discuss images	3	–	3
Reading experience	4	2	2
Book report	4	2	2
Sum	11	4	7

The other two students have included the images they discuss, even though the assignment does not require this. In fact, Ida has even included three more, as an illustration of the drawing styles she finds. **Figure 2** shows a facsimile, to give an overview of the layout of her analysis.

These pages show that Ida is very attentive to layout and image use. She has placed the three examples of different drawing styles at the bottom of her first page and uses them to support her written text. She connects the drawing style to the main character's mood and purpose with each drawing and with the topic in the narrative. She has found information on the drawing styles in an interview with the artist Ellen Forney, appended to the novel, but she finds her own examples of different styles. When Ida goes on to discuss two other images in greater depth, she places image and printed text next to each other. She shows a keen sense of the image-word interaction in the novel when she writes: 'In this chapter, he had already used so many words to tell so little, so I think it was perfect with a simple drawing like this ... it does not take the attention away from the words or the story.' Ida understands that the novel and its drawings are a work of art and says: 'Ellen [Forney] did a great job getting into the head of Arnold.' Ida has read the full multimodal ensemble of image and printed text, and she is able to take a meta-perspective.

Henrik used his phone to take pictures of the images and then placed the images he discusses on the right-hand side of the page (**Figure 3**). In other words, Henrik did not let available images on the Internet decide his choice of image, as some of the others did. The first image is a drawing of the main character divided into two, combined with handwritten tags that specify the difference when he compares 'White' and 'Indian.' Henrik points out how meaning is differently made in each mode and in the ensemble: 'when you read you start thinking about how the characters look, and it is really fun when the picture match[es] your imagination.' He then points out how the drawings make 'it feel like the book you are reading is more personal.'

One student who did not choose the task about images, but used images nonetheless, is Julie (**Figure 4**).

As may be seen from **Figure 4**, Julie has only *written* half a page, when the requirement was to write two. Perhaps she has included the large image of the novel's front page simply to fill her two pages? When we examined her second page, however, we realized that, though her text is short and has errors and slips in grammar, lexis, and spelling, she shows understanding of the main contents of the novel and communicates quite effectively in this ensemble. Her plot summary is concise, and she ends by leaving the reader with a cliffhanger: 'Wild they ever be friends again?/Or wild Rowdy hate Arnold forever?' [original spelling]. Her ending echoes the logbook task given by the teacher, in which there was a question about whether the students would recommend the novel to others. Julie has placed her enticing questions next to an image of Rowdy that aptly specifies his aggressive nature, which she describes in words: 'Rowdy becomes so angry that he punches Arnold in the face! He shouts that he would never see him again.' The drawing's close-up



Figure 2: Facsimile of Ida's text.

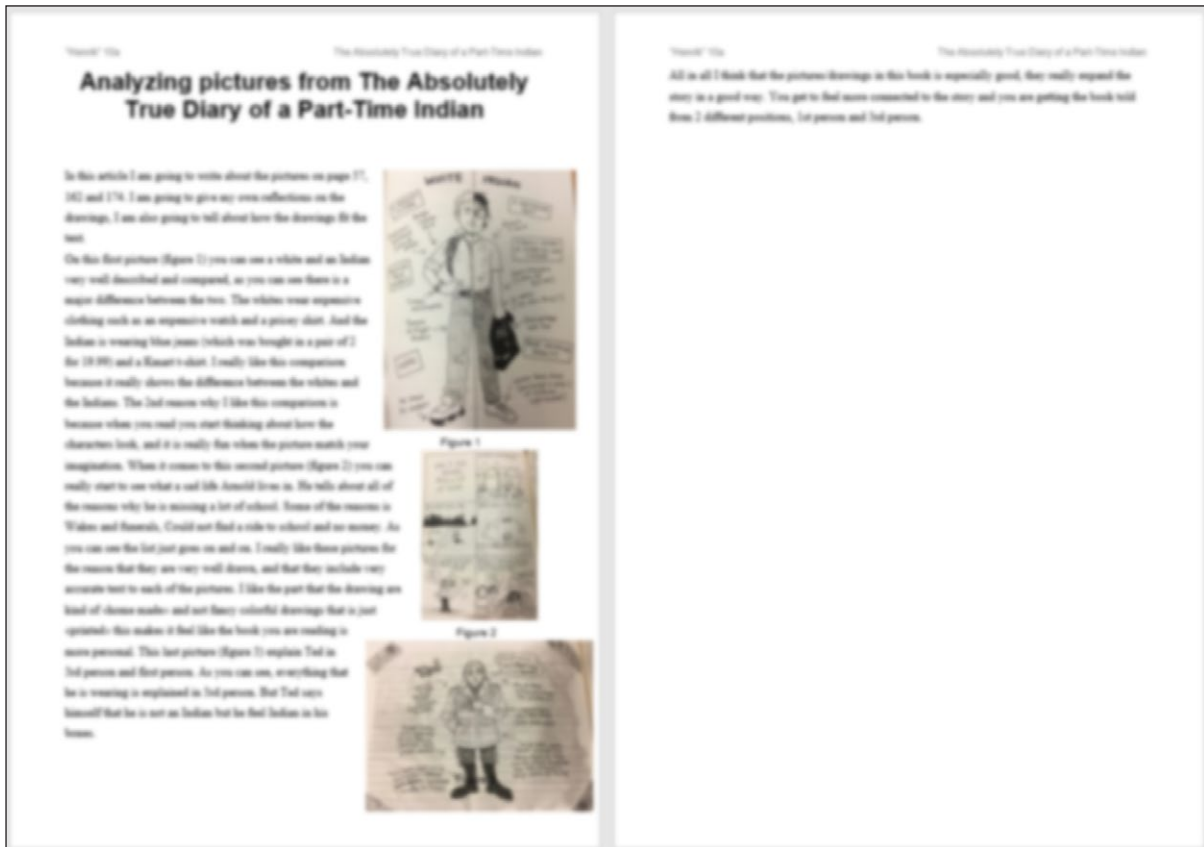


Figure 3: Facsimile of Henrik's text.

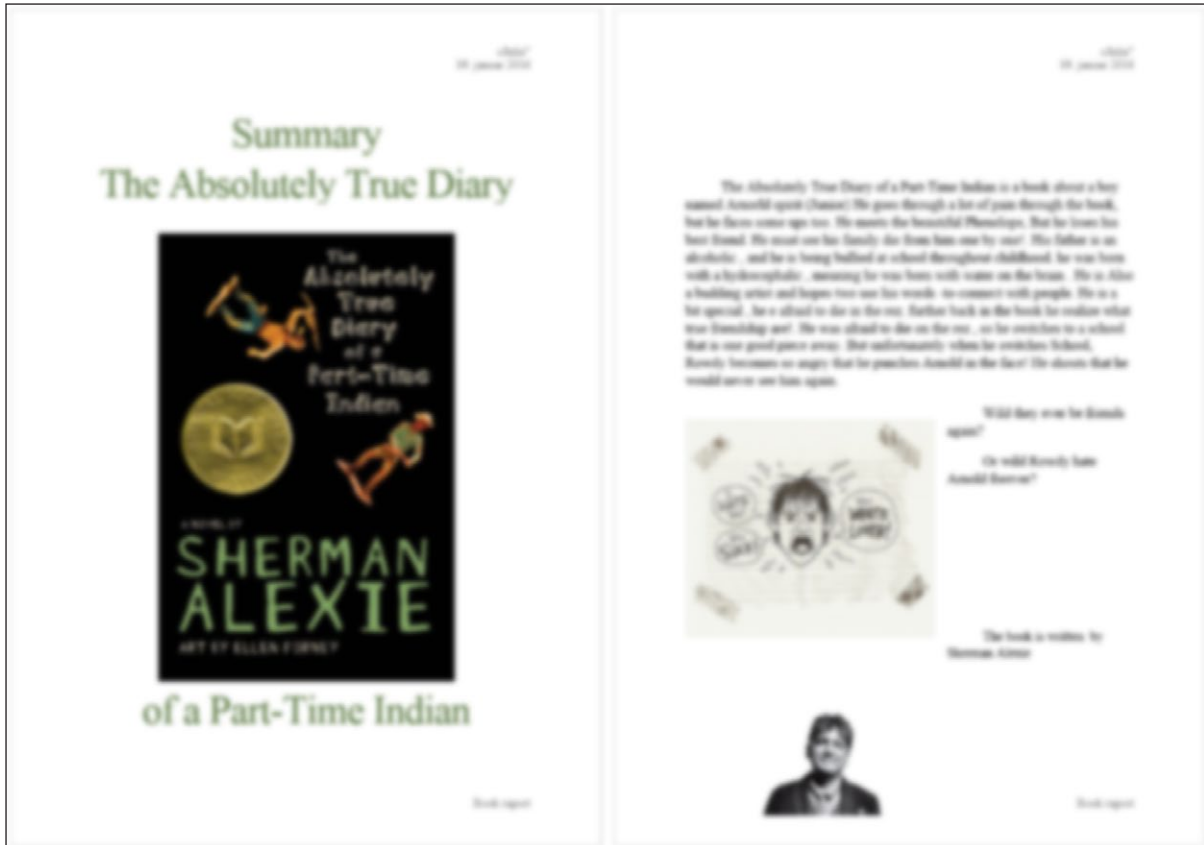


Figure 4: Facsimile of Julie's text.

frontal view of Rowdy demands the viewer's emotional involvement (Kress and van Leeuwen, 2006). Julie's final effort in persuading others to read the novel is an image of the author, also looking directly at the viewer. Sherman Alexie, however, looks pleasantly relaxed in contrast to Rowdy. This echoes the book, in which Rowdy serves as a foil to Alexie's alter ego, Arnold. In sum, Julie has created an engaging multimodal design of her own. We include her design, because it shows qualities that are easily overlooked if written text alone is assessed.

Discussion

In our analysis, we find that the teacher includes a whole range of resources for making meaning throughout the processes she designs, but these are more varied at the beginning. First, Diana has chosen a multimodal text as the core text for the whole process, and, in her introduction of the author, the topic, and the novel, Diana uses a range of modes with her PowerPoint and video. Research on English (L1) in Britain shows a similar use of image, PowerPoint and YouTube in introductory classes (Jewitt, 2011). Furthermore, we have shown that the alternation between individual and collective activities, including reading, writing, talking about the novel, and teacher to student assistance in creating a written assignment, all in all creates a learning sequence that in itself forms a multimodal ensemble.

The overall design for learning is met by the design in learning; knowing precisely how students 'turn the cog-wheels' is impossible, but signs of it can be discerned. For example, Diana makes the autobiographical aspect of Alexie's narrative known and shows a video of the author reading. Student Daniel comments in his assignment that, when he saw the video, this interfered with the mental image he had formed during reading: 'the picture mind became blurry' [original spelling]. Daniel has taken the exaggerations of the novel's images and words at face value and has to modify his interpretation in light of the video. The teacher, thus, has created an environment for seeing the novel in a broader perspective, and Daniel adjusts his understanding of the written mode, in light of the video.

The modes and design options explicitly afforded to the students for the final stage of their design in learning are traditional, that is writing and speaking. Thus, it seems that the visual resources are primarily seen as *support* for what the learning process is really about: learning written and oral English language, culture, and skills in literary analysis. This rich use of modes in the pre-reading stage, followed by an increasingly verbal textual orientation, is in accordance with other findings in research on multimodality in Norway (Smidt, Tønnessen, & Aamotsbakken, 2011) and internationally (Jewitt, 2011; Kress et al. 2005).

Diana seems more willing to include visuals to increase the aesthetic engagement and motivation and to adjust to the perceived learning styles of her students, than to recognize the diversity of modes as a resource for making meaning and literacy development. Her motivation seems to be that other modes may support written and spoken language. On the one hand, this is one of the advantages of using visuals for language learning. Picture book specialist Nikolajeva points out: 'A visual image can potentially

evoke a wider range of emotions circumventing the relative precision of words' (2014, p. 96). This is perhaps even more important in foreign and second language learning, in which the words' 'relative precision' is made even more relative by their being new or vague to the student. On the other hand, by using images mainly as scaffolding for learning, the design for learning risks missing a possibility to develop multimodal literacy. The exception to this is one out of three written assignment options, in which Diana asks for explicit attention to the images. Here, the role of images in the story as a whole, and an appreciation of the aesthetic experience, are observable in the design for learning.

In their designs in learning, some students seem to have a slightly different take on the multimodal ensemble of verbal language and images. In the examples we have discussed, we have seen that the students produce texts in which words and images are as closely knit together as in the novel they are commenting on. In some of the student assignments, the total meaning would not come through if words and images were separated. Especially, Julie's and Ida's assignments are examples of visually led texts, in which each page makes a visual unit (Bezemer & Kress, 2010). The affordances of the word-image ensemble allow Ida and Julie to dig deeper into the meaning of the novel than they would have been able to do through words alone.

What emerges from our analysis is that the teacher and the students adhere to different cultural patterns in their social semiotic formations (Lemke, 2000). The teacher's school practice is deeply rooted in teaching traditions, framed by curricula and plans, and to some extent renewed through new text forms and digital technology. This meets with the students' literacy practices that stem partly from their schooling experience and partly from leisure time activity, in which they are used to reading and producing multimodal texts tightly interlaced in word-image cohesion, in social media, to mention but one example. This distance between designs *for* and *in* learning is not overwhelming. Depending on how the students' response is met by the teacher, it may be seen as a fruitful tension, creating a space for further development – or, alternatively, as a space for miscommunication and frustration.

Likewise, while multimodal texts are gaining ground in Norwegian education, the dominance of writing (Kress, 2003) still lurks just beneath the surface, as even the pre-service teacher textbook mentioned states:

In terms of language learning, the visuals may support the understanding of the story and may help the reader to fill the gaps that are not easily accessible through the verbal text. This way of reading is spatial and is useful and highly relevant in today's multimodal society. (Rimmereide, 2013, p. 134).

On the one hand, this statement recognizes multimodality as part of literacy in modern language learning, but it simultaneously relegates images to the role of scaffolding the seemingly more important verbal elements. There is an ambiguity that is understandable, in terms of both the curriculum and the nature of the language subject.

Conclusion and Implications

In our analysis, we found that the teacher includes a wide range of resources for making meaning throughout the processes she designs in response to the multimodal literary text she has chosen to bring into the didactic work in the classroom. Both the interplay of words and images and the autobiographical nature of the text are reflected in her multimodal designs. However, it seems that the visual and other resources are primarily seen as *support* for learning written and oral English language and culture, and skills in literary analysis. The teacher's design for learning moves from a rich multimodal literacy practice towards traditional assessment based on verbal language products, though images form an option as a basis for this language production.

The students (working within the teacher's design for learning) are given a more limited range of modes in what they are asked to produce for assessment than the range they get offered for use during the learning process. We also observe, however, that, in their design in learning, many students include images as a mode without being asked to. Visual modes are easily afforded to them by the digital word processing software. Furthermore, we have claimed that the students have acted as interpreters of the parts of the teacher's design that interested them (Bezemer and Kress, 2016; Jewitt, 2014a; Selander and Kress, 2010) and that the teacher's attention to image has paved the way for students' inclusion of images in their assignments. Some of the students produce texts in which we discern a slightly different take on the multimodal ensemble of verbal language and images, seen in their production of texts in which the total meaning would not emerge if words and images were separated.

English teaching and learning, as seen in this paper, has multimodal qualities that are largely silent and untapped in relation to literacy development. Literacy is now a part of all subjects in Norwegian schooling (Blikstad-Balas 2016), and this paper, though based on one case, shows that, without the training of teachers to pay attention to modes beyond the verbal in their teaching and assessment, an important part of reading and production of texts is potentially lost as a means of learning. We hereby call for a 'multimodal turn' beyond the L1 subject. Today's curriculum for English does not include the production of multimodal texts, and it seems high time that students were qualified to do more than consume: to also produce multimodal texts in order to realize their full potential for meaning making in the classroom.

Notes

- ¹ Though this article is written in American English we use the British term *lower secondary school*, as this is the term used in official Norwegian curriculum translations.
- ² Even though Barton and Hamilton use the word 'text' to denote written texts, we use the word 'text' in the extended sense, including media that go beyond written texts.
- ³ Images in picture books make for steady interest in the Nordic countries, exemplified by the topic in the Nor-

dic Children's Book Conference (Nordisk barnebokkonferanse) which, in 2017, had the title "The Visual Turn": <http://stavanger-kulturhus.no/Arrangementer/Nordisk-barnebokkonferanse>. See also Lene Ask (2016).

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Competing Interests

The authors have no competing interests to declare.

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Article 3

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Inspired by image: A multimodal analysis of 10th grade English school-leaving written examinations set in Norway (2014-2018)

Abstract

What role does multimodality play in assessment in the English subject in Norway? This article focuses on final written examinations from 2014 to 2018 and investigates the multimodal literacy skills that examinations invite lower secondary school students to demonstrate. Examinations in the English subject are digital and technically open to a rich multimodal practice. Analysis in this article finds that the texts to be read in examinations are carefully designed multimodal texts, with plentiful use of visual aspects of writing and with images that add significantly to the creation of complex cohesive ensembles. When it comes to the examination tasks, however, the opportunity for the students' multimodal output is limited and ambiguous. In sum, there is an imbalance between input and output.

Keywords: multimodal literacy, multimodal texts, English, assessment, lower secondary school

Inspirert av bilder: En multimodal analyse av sentralt gitt skriftlig eksamen for 10. trinn i engelsk i Norge fra 2014 til 2018

Sammendrag

Hvilken rolle spiller multimodalitet i engelskfagets vurderingspraksis i Norge? Denne artikkelen fokuserer på avsluttende skriftlig eksamen fra 2014 til 2018, og undersøker hvilken multimodal literacy (tekstkyndighet) eksamen legger opp til at ungdomsskoleelever får vise fram. Eksamen i faget er digital og teknisk sett åpner den for en rik multimodal praksis. Analysen i artikkelen viser at eksamenstekstene elevene leser er nøye designede multimodale tekster, med rikelig bruk av visuelle aspekter ved skrift, og med bilder som bidrar til komplekse, helhetlige, sammensatte tekster. Når det gjelder eksamensoppgavene derimot, er elevens

mulighet til å uttrykke seg multimodalt både begrenset og tvetydig. Alt i alt er det en ubalanse mellom det som skal leses og det som skal skrives til eksamen.

Nøkkelord: multimodal literacy, sammensatte tekster, engelsk, vurdering, ungdomstrinn

Introduction

This article investigates the role of multimodality in the national written school-leaving examinations in the English subject in Norway. The aim is to see what role various modes and their interaction play in the examination and its preparatory material. Broadly speaking, multimodality “highlights that people draw on distinctly different sets of resources for making meaning” (Jewitt, Bezemer, & O'Halloran, 2016, p. 158). Texts that create meaning from several semiotic resources, such as speech, writing, pictures, colors, sound, and so on, are multimodal texts. Central here is the interplay between modes (Maagerø & Tønnessen, 2010, p. 32). The Norwegian curriculum for the English subject does not use the term ‘multimodal texts’ per se. It does, however, apply an extended notion of text. When the extended notion of text was first introduced, it marked quite a revolution from the print-based notion of text:

A text may be spoken or written, prose or verse, dialogue or monologue. It may be anything from a single proverb to a whole play, from a momentary cry for help to an all-day discussion on a committee. A text is a unit of language in use. (Halliday & Hasan, 1976, p. 1)

This view of text as being more than printed words was soon adopted into the subject curriculum for English, and is still applied: “Oral, written and digital texts, films, music and other cultural forms of expression can further inspire personal expressions and creativity” (Udir, 2013, p. 1). This article contributes to the research field of English education by using a social semiotic multimodal analysis to show what role multimodal literacy plays in summative assessment in the English subject in Norway.

English in a Norwegian context

English is ubiquitous in Norwegian society, especially in popular culture such as music, gaming (Brevik, 2016), film, and television (dubbing is unusual, except for child audiences (Dahl, 2014, pp. 28-29)). Norway has been in the top five on the English Proficiency Scale for Europe since 2011 (Education First, 2018). In school, English is a core subject, taught during all ten years of compulsory

primary and lower secondary¹ education. Ultimately, in 10th grade (15-16 year-old students), a selection of students is drawn to sit a final written examination. Students are to have attained both subject-content knowledge, connected to literature, culture, society and history in the English-speaking world, and mastery of form, in terms of linguistic and formal communication and recipient awareness (Udir, 2013, p. 3).

The English examinations start with an obligatory preparation day, in which all students gain access to preparation material. The teacher guides the students, who can work either alone or together to prepare for the individual written examination. All means of help are allowed while preparing, including using the Internet. Although the guidelines do not state it explicitly, the students may use a digital memory stick to save sources and items they find useful for the examination, such as images and texts. They bring this memory stick with them to the examination the next day, at which time the Internet will not be available to them. Being able to cite sources is part of the (digital) literacy skills being tested.

Norway may be of interest internationally, as the digitization of education and the written examination has come farther in Norway than in many other countries². The English written examination is administered nationally and therefore constitutes an important signal of what the Norwegian Directorate for Education and Training (Udir) expects from students' competence regarding the subject's curriculum. Norwegian curricula are outcome-based, and do not specify syllabus texts or specific topics. National examinations (as well as textbooks and traditions) can therefore be expected to influence classroom practices. Furthermore, the examination is digital and technically open to a rich multimodal practice. Since the curriculum applies an extended notion of text, it is relevant to look at how the examination deals with this phenomenon.

Literature review

Researchers across the world have shown an interest in how modes and multimodality affect the teaching and learning of English as a school subject. This research has been conducted, predominantly in contexts where English is the official language, with students who are learning English as their first or additional language (e.g. Beavis, 2013; Belcher, 2017; Bezemer & Kress, 2009; Choi & Yi, 2016; Guichon & McLornan, 2008; Howell, 2018; Jewitt, 2006, 2011; Kress et al., 2005; Royce, 2013; Stein, 2000). The high proficiency level in Norway makes this research relevant to the present study.

Several researchers, such as Jewitt (2003), and Yi, King, and Safriani (2017), have pointed out the need for assessment tools that recognize multimodal literacy

¹ Though this article is written in American English I use the British term *lower secondary school*, as this is the term used in official Norwegian curriculum translations.

² The European Commission's *Digital Scoreboard* of "Individuals with basic or above basic digital skills" shows Norway in second place, surpassed only by Luxembourg (2015, p. 19).

in English education. A decade ago, Jewitt found that writing was the dominant mode in assessment in the UK: “While learning draws on a wide range of images and non-linguistic resources, mainstream methods of assessment used in schools persist in being almost entirely mono-modal” (2008, p. 52). In Sweden, Godhe (2014) similarly found that first-language multimodal texts tend to be assessed on the basis of written text. Unsworth (2014) has looked at national testing in an Australian context, finding that curricular goals for multimodal literacy are significantly less prominent than could be expected.

Multimodality in education has been researched in Norway from a societal perspective by Smidt, Tønnessen, and Aamotsbakken (2011), from a cross-curricular viewpoint by Løvland (2006, 2011), and from the perspective of out-of-school literacy by Michelsen (2016). In Norwegian as a school subject, Kruse (2018) explored benefits of primary school multimodal text production. Burgess (2016) researched transduction from short story to film in lower secondary school, and found that the assessment of multimodal texts in first language teaching was difficult for teachers and that the end product, rather than the process, formed the basis for assessment. Other studies, such as that of Silseth and Gilje (2017), discuss how assessment practices can be developed to use both formative and summative assessment when working with multimodal texts in lower secondary schools. Assessment and multimodality thus emerge as a challenging and still developing matter for education.

Multimodality has received little attention in connection with English as a foreign or second language in Norway. Exceptions include Skulstad (2009, 2018), who has researched textbook tasks and calls for a new conception of communicative competence that includes multimodality. Furthermore, Ørevik (2012, 2019) has studied upper secondary English examinations with a focus on genre, including multimodality. Visual studies, by researchers such as Lund (2002, 2016) and Waallann Brown and Habegger-Conti (2017), have investigated textbooks for English, finding a tendency to use stereotypical images that potentially counteract the intercultural aims and tolerance proposed by the curriculum.

Aims and research questions

This article aims to provide new insight into the field of English education, by exploring the multimodal aspects of the final examinations, and asks the following research questions:

- Which modes are employed, and in which ways do they contribute individually, and in the multimodal ensemble, to the digital English examination?
- What signals do the texts and tasks give concerning what is considered relevant literacy within the English subject today?

The next section gives an overview of the analytical framework.

Theoretical framework

Modes and multimodality

Modes are “socially shaped, culturally available *material* resources” for communication (Bezemer & Kress, 2016, p. 7). Modes have different *affordances*, that is the potential and limitations of what a mode can do. Music, for instance, can create mood in ways that words cannot (Tønnessen, 2012). A multimodal text can present meaning beyond the sum of its individual parts. Interplay between modes is often based on using the most apt mode to communicate or represent meaning, what is called *functional specialization* (Bezemer & Kress, 2016, p. 24; Kress, 2003, p. 46). On a driver’s license, for example, an image can immediately affirm the identity of the driver, whereas details concerning his or her qualifications are given in writing. In a multimodal text, one mode can be more prominent in conveying meaning, carrying the *functional load* (Bezemer & Kress, 2016, p. 24), sometimes regardless of its specialization or aptness.

Defining a mode is easy in abstract terms, but in practice it is not simple. In an empirical study of multimodality in secondary school science in London, researchers noted that mode depends on context:

...we may regard visual image to be a mode, while a professional photographer will say that photography has rules and practices, elements and materiality quite distinct from that of painting, and that the two are distinct modes. (Kress, Jewitt, Ogborn, & Tsatsarelis, 2014 [2001], p. 53)

The definition of mode is influenced by practice, and what is of use to distinguish as a mode. In the Discussion section, I will explore the question of which modes are recognized in the context of the English examination.

Multimodal analysis concerns paying attention to the choice and integration of modes, noticing what role each mode plays in the ensemble. All communication and all texts are multimodal (Baldry & Thibault, 2006, p. 19), and there is no such thing as monomodality to serve as an antonym for multimodality, except as a theoretical antithesis. This highlights the problematic aspect of the research findings mentioned in the literature review, in which assessment tends to focus on written text. Multimodal theory regards language as one of many ways of making meaning (Bezemer & Kress, 2016; Jewitt, 2006, Norris, 2004). A multimodal approach to communication sees all modes as having equal semiotic standing or potential to contribute to meaning (Bezemer & Kress, 2016; Jewitt, 2014, p. 15) and, thus, asks for a readjustment of the Vygotskian notion of language as human beings’ most important psychological and cultural tool (Vygotsky, 1986). In a subject such as English, however, language is still center stage, and multimodality may be more about recognizing modes interacting with

language, and not necessarily supplanting it. The recognition that language is always combined with other modes leads to the issue of multimodality's relation to literacy.

Literacy, multimodality, and digital texts

Multimodality is not a new phenomenon, but with digital communication it becomes easier to combine modes, and this in turn changes the way we write, read, and learn. Several studies have suggested the need for a view of literacy that includes multimodality (e.g. Jewitt, 2003; Tan & Guo, 2009; Walsh, 2008, p. 101). Computers are now a natural part of school, and changing the medium "from page to screen" (Snyder, 1998), makes a wider variety of modes available (Danielsson & Selander, 2016; Kvåle, 2015; Mills, 2010). The preparation material of the English examination used to be published as a paper booklet but is now a website, a medium that offers modes and affordances that differ from those of paper (Kress, 2003). Likewise, the students produce their response on computers and, in the Analysis section, I will look at the questions in relation to the preparation material and discuss how affordances of digital texts are included in the tasks set in the examination.

Sewell and Denton (2011) suggest that multimodal literacy "recognizes that for many children, knowledge construction has shifted away from the static, printed text to dynamic texts supported by sound and pictures" (p. 61). Multimodal literacy, according to Skulstad (2018, p. 263), "is the ability to interpret and use multimodal semiotic resources and multimodal genres in a successful way." Furthermore, van Leeuwen points out that

Such a form of literacy must be based on a knowledge of what can be done with different semiotic modes and how and of the ways in which they can be integrated into multimodal texts; however, it also, and equally importantly requires an understanding of communicative contexts and an ability to respond creatively to the unique demands of specific situations. (2017, p. 5)

The situation of the examination is the focus in the present paper. Bringing in the context also brings in the issue of meaning making and social semiotics: "Recognizing the agency of the sign maker and their (implicit or explicit) intentionality is central to a social semiotic approach" (Jewitt, Bezemer, & O'Halloran, 2016, p. 68). Although it is challenging locate the intentionality behind a text, social semiotics regards signs and texts as semiotic indications from which meaning can be read.

Visual modes and interplay with written text

In school English, visual modes constitute an important part of the textual practices, reflected in the fact that images have been included in final English examinations in Norway since the 1950s (Gundem, 1989, pp. 118-131). In my analytical approach, I draw on Kress's and van Leeuwen's works on

multimodality and, particularly, on image-text interaction and multimodal cohesion (Kress, 2003; Kress & van Leeuwen, 2006; van Leeuwen, 2005). Multimodal analysis in this article will begin with multimodal ensembles, asking how each mode may contribute to the meaning made (Bezemer & Kress, 2016, p. 24).

Naturally, in a written text, *writing* provides the majority of information and thus carries the functional load, but how does writing interact with other modes? Analysis in this article will use the fine-grained framework developed by van Leeuwen (2005). He has outlined five categories of *information linking* between word and image. The first two are ways in which one mode elaborates another: *specification* (in either the form of anchoring or the form of illustration) and *explanation* (elaborates the meaning potential that text can give an interpretation of what an image means and vice versa). The next three are ways in which one mode extends the meaning potential of another: *similarity*, *contrast*, and finally *complement* (one mode gives information that the other does not) (van Leeuwen, 2005, p. 230).

Image-text relations		
Elaboration	Specification	The image makes the text more specific (illustration) The text makes the image more specific (anchorage)
	Explanation	The text paraphrases the image (or vice versa)
Extension	Similarity	The content of the text is similar to that of the image
	Contrast	The content of the text contrasts with that of the image
	Complement	The content of the image adds further information to that of the text, and vice versa ('relay')

Figure 1: Facsimile of van Leeuwen's model (Fig. 11.4 Overview of visual-verbal linking, 2005, p. 230).

These ways of looking at relations between image and verbal text are useful for establishing multimodal interplay, together with other aspects such as composition of the multimodal ensemble.

Reading paths are more open in multimodal than in print-dominated texts (Bezemer & Kress, 2016, p. 43). Orchestration on a page can be visually arranged, for instance by grouping or clustering: "Clusters of items and objects on, for example, a web page are small-scale arrangements of items which are nested within larger wholes" (Baldry & Thibault, 2006, p. 31). Other ways of orchestrating a page, and possible reading paths, are framing, font and layout. In addition to information linking, the analysis makes use of two other ways of creating cohesion that van Leeuwen calls "rhythm" and "composition". *Rhythm* pertains to issues of composition in both time and space (layout) and the regularity of alternation between modes. Rhythm can create cohesion or disruption, the latter not a feature that I anticipate finding in the examinations. *Composition* refers to

spatial layout, such as borders, clusters, central or marginal placement of modes, which can structure the “information value” of elements in a text (van Leeuwen, 2005, pp. 179-218).

Methods

Sample and rationale

National examinations from the years 2014 to 2018, the five latest to date, make up the data material. The selection of these five 10th-grade examinations is based on the revised English subject curriculum that came into effect in 2013. Examinations prior to 2013 tested a different curriculum outcome, and comprised a greater number of texts. Each examination consists of online preparation material and the actual examination. In addition, there are guidelines, which are drawn into the discussion in this article. Findings presented in Section 4 are illustrated with representative examples and, in some cases by illustrations of the atypical, which by their contrast make it easier to see the conventional.

Choosing examinations as material for analysis is based on the understanding that tests and examinations are likely to have an impact on teaching, learning and assessment: often referred to as the *washback effect* (Alderson & Wall, 1993; Simensen, 2007). This term has sometimes been used negatively to describe the way some schools “teach to the test”. Ytreberg (1993, pp. 128-129) gives an example of how, despite curricular requirements, oral skills in English were given less priority during the final year of lower secondary school in Norway, until oral final examinations were established in 1988. Alderson and Wall theorize that, the more important and consequential an examination, the more likely it is to have a washback effect (1993, p. 120). This article focuses on the written final examination in English, which is highly consequential: together with the oral examination, it has a direct impact on the grade point average and, thereby, admission to upper secondary school.

The examination is designed to summatively assess curricular content knowledge and literacy skills, and it would hardly be fair to negatively characterize teaching according to the curriculum as teaching to the test. A positive washback effect could even be envisaged, in that Udir has an opportunity to operationalize its understanding of the curriculum and, consequently, to influence school practice, by what and how it chooses to test. Overall, this makes an analysis of the five most recent examinations both valid and relevant for studying the role of multimodality.

Analytical methods

The analysis is divided into two main parts, looking at the preparation material and the examination tasks, respectively. Step one in exploring the preparation material for all five years starts by identifying the number of texts and modes

used. As pointed out in the introductory paragraph of the material for the 2014 examination: “The preparation material includes factual and fictional texts as well as pictures that present aspects of Civil and Human Rights”. Establishing themes is of interest for the next analytical step. By gaining an overview, it becomes possible to discern patterns within each year’s examination and across years.

Subsequently, step two of the analysis goes into detail, and considers the functions that writing and other modes have in the preparation material. By making a close reading, hermeneutically spiraling between part and whole, and focusing on the interplay between modes, I will use the analytical categories of multimodal cohesion outlined by van Leeuwen (2005). The present analysis takes into account rhythm, composition, and information linking. I will give illustrative examples of the interaction of modes that may take place, when students read and prepare.

In the third analytical step, the examination questions are investigated. I start by briefly considering the tasks as multimodal texts in themselves, using the same framework of multimodal analysis as above. Next, the analysis turns attention to the examination tasks the students are given. Does responding to the tasks depend on multimodal literacy, on reading the information found in modes other than (or combined with) written text? Furthermore, do the questions ask students to produce their content in modes other than written text? This leads me to the fourth step, where I investigate what the guidelines for the examinations state about modes. Which modes are the students invited to use in their creation of texts?

Ethical considerations

Researching examinations requires some ethical considerations. While examples are desirable for research transparency and for a clear line of reasoning, original copyright holders, examination copyright, and the assessment genre itself all pose restrictions. In my writing, I aim not to spoil the use of previous tests for classroom use as mock examinations, nor do I wish to reveal information that would give readers undue advantages in future examinations. I therefore paraphrase, and endeavor not to disclose details beyond those that are necessary for my discussion. Permission to use the original artworks shown in this paper has been obtained from the copyright holders.

Analysis and findings

Commencing descriptively with the preparation material first, and the tasks last, this section will proceed to show analysis and findings, including examples. Structurally, all five years’ examinations are quite similar.

Preparation material

The screenshot shows a web page from the Norwegian Ministry of Education and Research (Utdanningsdirektoratet). The page is titled 'Language and belonging' and contains several sections:

- Welsh Language Use Survey 2013-15:** This infographic compares Welsh language use in 2006 and 2015. It shows that the number of Welsh speakers increased from 47% in 2006 to 53% in 2015. It also notes that 43% of Welsh speakers are fluent and use the language daily, and 51% are bilingual.
- Hating a language (Gaelic):** This section discusses the challenges of learning a second language, specifically Gaelic in Scotland. It includes a map of Scotland and text about the importance of language in identity and belonging.

Figure 2: Screenshot from the 2018 10th grade preparation material, showing the layout of the full scroll-down page

Layout and modes

All the examinations for 2014-2018 have preparation material organized as regular websites with a fixed left-hand navigation menu of hyperlinks (see Figure 2). The layout is sober, with font type and size used to distinguish headings from content, creating a steady rhythm. Color is used for framing, with banners in blue, and logo in orange, as stable compositional features across the years. Giving the students time to prepare is intended to stimulate the use of learning strategies and cooperation skills, as outlined in the curriculum (Lunde & Skeiseid, 2013, p. 40), and constitutes positive washback.

The number of texts (not counting guidelines) remained unchanged at eight, until the preparation material for the two latest examinations arrived with ten and eleven texts, albeit with a relatively similar total word count. Texts typically range from literature passages, newspaper pieces, web pages and quotations, to lyrics and speeches. Table 1 provides an overview of the distribution of written text and images ('infographics' will be explained below).

Table 1: Overview of the distribution of written text and image in the 10th - grade English examination preparation material, years 2014-2018.

Year	2014	2015	2016	2017	2018
Title	If I were you and you were me: Stereotypes and prejudices	Challenges	Around the world: Exploring some English-speaking countries	How we connect online and offline	Belonging
Number of texts	8	8	8	10	11
Texts without images	5	2	4	2	4
Texts with images	3	6	4	8	7
Infographics	0	1	0	3	1
Total number of images (including infographics)	7	10	6	9	11

The number of texts with and without images varies from one year to another. What is a stable pattern, not discernible in Table 1, is the fact that fiction texts are those that generally come without images (see the Discussion section). The absence of illustrations, so consistent in literary texts, makes the exceptions conspicuous. In the 2018 preparation material, there is one text with extracts from a novel, accompanied by two photos from Northern Ireland, where the novel is set. Similarly, in the 2017 preparation material, appended infographics appear at the bottom of the fictional texts. Headings, however, separate the infographics from the fiction excerpts, forming separate clusters. Consequently, the images in the composition seem less strongly related to the narrative, despite belonging to the same hyperlink or page.

Written mode in ensembles

Written text carries the functional load in the preparation material in general, even when several images are present. Figure 3 gives an example of a text assembled and constructed for the examination. Three proverbs from around the world are quoted. Thematically, text and image are related in all three clusters; the images relate to and *illustrate* parts of each written text (van Leeuwen, 2005, pp. 229-230). Written text carries the functional load; the written parts would even make sense and create coherence between them without the images. To some extent, the

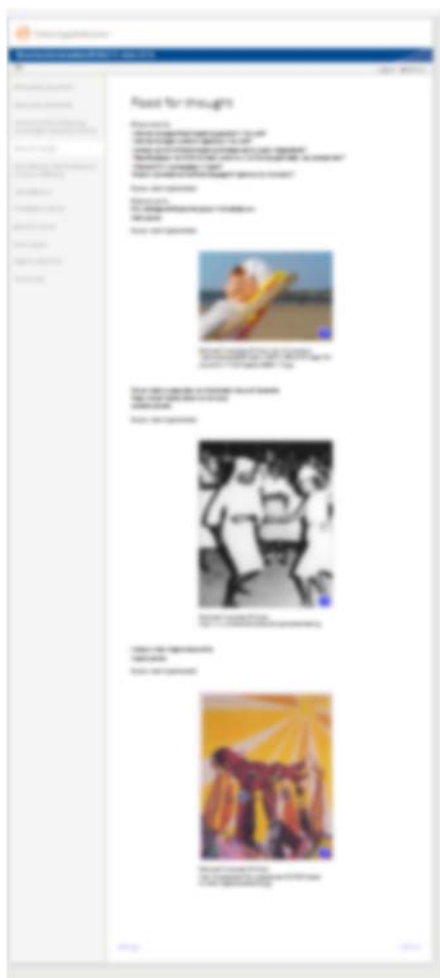


Figure 3: Screenshot from the 2016 10th grade preparation material, showing the full scroll-down text, and text-image distribution, rhythm and overall composition (blurred to prevent copyright infringement).

images are superfluous, though not disconnected from the whole. One possible function of the images, important for language learning, is to give students space and a concrete starting point for thinking more about the full meaning of each proverb. In this respect, the images not only illustrate, but also work to *extend* by similarity, the meaning of the words. For this valuable function to apply, the students must pay attention to, or take an interest (Bezemer & Kress, 2016) in, the images. None of the written texts mention the images, or refer to them. There is no metalanguage in the form of ‘as seen in the picture’ at all. Positioning is used to create potential cohesion, not metalanguage.

Captions constitute a second kind of written text in each cluster and in the ensemble as a whole. Both here and elsewhere (and throughout the other years’ preparation material), captions are written in a different font and state the digital source of each image. One quite pragmatic interpretation may be to see the captions as models for the students to follow in how to cite sources. Another pragmatic function is that students can use the digital sources to search online for further information and contextual clues. On the whole, this sample shows that students need to take different fonts, layout and images into account when reading the clusters and the ensembles.

Images in ensembles

All the images used in the investigated preparation material reflect the themes in the written texts. In other words, the images serve a purpose and play a communicational role and are neither random nor purely for decoration. Decoration may of course be an aspect of any image's function, but it is significant that every image does take part in the thematic interplay of each year's examination. In language learning, it makes sense that images repeat or emphasize text and thus act as scaffolding for understanding language. Nevertheless, the aesthetic pleasure in images and in contemplating the multiple possible meanings of image (as, correspondingly, of text) also has some place in the preparation material.

The screenshot shows a web page from 'Utdanningsdirektoratet' (The Norwegian Directorate of Education) for 'Eksamensforberedelse ENG0012 våren 2014'. The page title is 'If I were you and you were me'. It features a Norman Rockwell painting 'Moving Day' (1967) showing a family moving into a new home. Below the painting, there is text about civil and human rights, including a reference to the Universal Declaration of Human Rights. The page also has a sidebar with navigation links and a search bar.

Figure 4: The first content page of the 2014 10th grade preparation material, featuring “New Kids in the Neighborhood” by Norman Rockwell. Reproduced in this article with kind permission of the right holders, the Norman Rockwell Family Agency.

Above is a screenshot of the first content page in the preparation material for 2014, of which I will proceed to perform a close analysis. As with all five preparation websites, the first text serves to introduce the general topic; as such,

this page is representative. When opening this page, students' eyes may be drawn first to the image, and they may start their reading path based on the central position of the image. Another natural starting point is in the upper left corner, as most Western cultures use the left-to-right directionality (Kress & van Leeuwen, 2006, p. 204). The logo and name "Utdanningsdirektoratet" are found here, but, though this states the name of the producer of the test and gives the document an added feeling of formality, the logo may be passed over as less important information for students in the examination situation. The image shows two black children on the left and three white children on the right, all looking directly at each other, leaving the viewer as an outsider looking in on the scene. The relationship between the viewer and the image is that of 'offer' (Kress & van Leeuwen, 2006, p. 119), in which the image contains items of information or contemplation. Images allow a freer reading path than the linearity of text, and "[i]n image, imagination focuses on creating the order of the arrangement of elements which are already filled with meaning" (Kress, 2003, p. 4). Some elements of the scene constitute contextual clues, such as the clothes the children wear and the row of identical suburban houses. Nevertheless, what the image represents in itself or offers as part of the preparation material as a whole may not be evident.

Next in their reading path, students may look at the printed headline, which gives only a vague clue to the image's context: "If I were you and you were me". The headline and the posture of the children in the image may together give an understanding of the theme as curiosity towards one another and what it would be like to be in the others' shoes. The printed caption below the image gives the title, artist, year and source of the image: "*Moving Day*' by Norman Rockwell, 1967. Retrieved from: nrm.org November 12, 2013"³. All these pieces of information can help the students make meaning of the image in the given context. The printed body of text following beneath specifies the intended link for the students and anchors the image, when it straightforwardly states that "This year's topic is Civil and Human Rights, and it is inspired by the Universal Declaration of Human Rights. ...". A student may of course choose a different reading path from the one sketched out here. However, shifting between the written words and the image, going back and forth between modes, one influencing the interpretation of the other, it becomes clear that skin color in the painting may be another factor to be considered in the image. The image is a depiction of integration in Chicago in the 1960s.

There are four short paragraphs of printed text below the image. These explain the context and thus simultaneously open up and narrow down the meaning potential of the image, just as the image both extends and possibly elaborates the theme of the text. The paragraphs and the image as a whole point forward to what will follow in the rest of the texts in the preparation material.

³ Norman Rockwell paintings are even used in the preparation material for examinations for 2000, 2001, 2003, and 2006 (Reisjø, 2006, p. 73).

My analysis shows that most of the texts dealing with cultural, societal or historical topics are illustrated in all five years of examination preparation material. As a rule, the images in the examinations are less open than the above example and tend to elaborate rather than extend the meaning potential. There is one single occurrence of an image (Figure 5) extending the meaning of the printed text to the extent that it can be characterized as bringing in new information.

The image in Figure 5 is part of a page containing four quotations about



Figure 5: "Brexit" by Patrick Chappatte, from New York Times International. Reproduced in this article with kind permission from the artist. © Chappatte, The New York Times www.chappatte.com

belonging (preparation material 2018). None of the quotations mentions Brexit or the Scottish independence referendum, nor are these topics mentioned in the rest of the preparation material; thus, the image and its caption (which contains the words "brexit-humour-cartoons" in the source's URL) introduce a new aspect and challenge the rhythm.

Image rarely carries the functional load of meaning making in the English examination. One example to the contrary is in the 2017 test, in which there is a page bearing the headline, "Cartoons", in the standard

font. Two satirical newspaper cartoons comprise the contents, with sources given beneath. The juxtaposition of the two cartoons is a design assembled by the test developers. The theme in both cartoons is how social media change interaction and friendship. Both cartoons use image in combination with printed verbal mode, with the information linking being that of contrast in one and complement in the other. This expansion is necessary, as neither cartoon would be fun without the interplay of modes. The caption is simply the digital source, and, as mentioned, this can function as anchorage if the reader pays attention to it.

Images can differ greatly; for the purpose of this analysis and as indicated by Kress in the earlier quotation, I have not found the need to distinguish between photo and painting or between cartoon and drawing. Nevertheless, I do wish to point out another kind of visual. Statistical information, shown as charts, pie diagrams, or graphs, is called *infographics*.



Figure 6: Infographics from the 2017 10th grade preparation material (blurred to prevent copyright infringement).



Figure 7: Screenshot of part of a text in 2017 preparation material, showing pie chart and its colors (blurred to prevent copyright infringement).

Infographics

Infographics are clusters with high ‘modal density’ (Norris, 2014), where visual resources, such as shape, color and symbols, interact with writing, and the relationship is complementary. Based on conventions, they convey specific information. Infographics feature prominently in the 2017 examination. The most striking occurrence is shown in Figure 6. This large and unusual infographic collage of different social media messages, framed by a dark green background, forms a visual unit (Baldry & Thibault, 2006, p. 86). A girl and a boy feature as the communicators, and the infographics thus “use the pedagogical opportunity of illustrating and making contents concrete by use of ‘individuals’ – as is often done in journalistic infographics” (Engebretsen, 2013, p. 123). In fact, these are statistical facts about social media use, aptly presented as if they were Instagram posts and Twitter tweets, albeit in a cartoonish rather than a realistic style. Otherwise dry facts come to life in an appealing and compressed way.

Making meaning from graphic and statistical material is a part of numeracy skills in the English curriculum. Infographics appear in the 2015, 2017 and 2018 preparation materials. The 2017 examination features two pieces of infographics: a pie chart (Figure 7) and a bar graph chart. I have counted infographics as images in Table 1, for they are dominated by shape and color in different nuances and must be read visually and spatially, combined with text that gives them meaning. The two instances of infographics in 2017 stem from the same source and thus have the same colors and style, but are placed at the end of two different text pages. Textually, this provides

uniformity across the preparation material. The uniformity and the appendage of

the infographics in turn give a somewhat instrumental feel, as if placed there to provide students with a chance to demonstrate skills in reading statistical figures.

Ideationally, the infographics (Figure 7) offer information about young people's use of the Internet, and they contribute to the overall theme of the test, with their compact and rich contents presented in distilled form. The colors are deceptively similar to the colors of the Udir blue and grey profile headlines, and, though this seems to be pure coincidence, the interpersonal effect is that of a factual and even authoritative relation to the reader. This might make it less natural for students to question the reliability of the graphs.

To summarize, the preparation material for all years' examinations comprises carefully composed multimodal texts. Images, including infographics, and layout and color contribute to meaning making in well-orchestrated smaller and larger clusters, all connected to the overall theme of the preparation material as a whole.

Examination questions

This section considers the set examination task: first, the examination document as a multimodal text and, secondly, the role of multimodality expressed in the

questions. Tasks are handed out as a paper booklet, but students use computers to produce their responses. The front page (see Figure 8) is highly visual, with the Udir logo, a recurring blue/grey framed formal heading that comes with all publications from Udir; the specific topic heading; and a large image that is a facsimile of the first image used in the online preparation material. Visual coherence across years and across examination parts is thus created, giving a sense of authority and stability. For students sitting the test, the image on the front page of the examination is one they recognize from the preparation material. Textually, it binds the examination parts together. Interpersonally, it can create a sense of familiarity that can ease examination anxiety, and, ideationally, it reminds the students of the theme of the test.

The rest of the task booklet is dominated by printed text, using layout such as headlines and bullet points to visually contribute to meaning making.

Regarding the actual tasks, all five examinations analyzed here are structured in the same way, with two parts. Part 1 contains two tasks, both of which must be



Figure 8: Front page of the 2017 10th- grade examination, featuring "Generation Gap" by Bill Porter © 2007; image reproduced with permission.

answered. These two are connected to *reading*. Task 1a relates to the preparation material, in which several texts are rich multimodal texts, whereas Task 1b asks the student to read a short new appended text and write a comment, including personal opinions. The appended text comes without image, rendering multimodal literacy virtually unnecessary, except for the visual qualities of the writing.

Part 2 is closely connected with the preparation material. Students select one of four different tasks and compose a long answer. From a multimodal perspective, it is significant that the first three years examined here all have one task that incorporates image. For example, Task 3d in 2014, states:

Look at the Norman Rockwell painting on the title page. The title of the painting is “Moving Day”, and it is from 1967. Create a text inspired by the painting. Include the following:

- Describe the painting and its setting
- Choose one of the children in the painting and describe what he or she is thinking about
- Discuss what the painting reveals about race issues in the USA

In the above task, image works as an inspiration and prompt for writing; it also generates the connecting of culture and history with the visual expression. It is noteworthy that the verb *write* is not found in the tasks. Most of the tasks, in all years examined, use the verb *create*, which could indicate an openness to the creation of multimodal texts. In the 2015 examination, image is less prominent but still an option as a prompt in a very open-ended task: “Create a text inspired by one or more texts or pictures in the preparation material...” (Task 2c). Then, in 2016, Task 2d includes another open task: “...Using one or more proverbs, texts or pictures from [the preparation] material as your starting point...” In spite of the 2017 and 2018 examinations having the largest number of texts with images, no tasks explicitly request that attention be paid to either an image or the interplay between the image and the textual contents.

Discussion

Images can scaffold meaning making during reading

This article began by asking which modes are employed in the English examination, and what kind of semiotic work is carried out by individual modes and the multimodal ensemble. Unsurprisingly, the written mode is dominant and carries the functional load in the preparation material. Images are a frequent mode, however, and their function in the examination is mainly to scaffold meaning making and, in some cases, to expand the meaning potential of the written words. The preparation day preceding the examination is intended to encourage reading strategy use as well as the use of learning strategies (Lunde & Skeiseid, 2013).

One such strategy can be to attend to the interplay between image and text in the preparation material. Norwegian learners of foreign languages tend to use a bottom-up approach when reading (Ibsen & Wiland, 2000, p. 189). This means they put too much emphasis on detailed decoding and single words and sentences; in short, they cannot see the wood for the trees. Visual mode has the advantage of being quick to ‘read’ (Kress & van Leeuwen, 2006), and, when used to carry meaning and function for information linking (as opposed to decoration), image can stimulate a top-down approach. This is true for any text, but it seems especially important for a foreign or second language. Clearly, the designers of the preparation material use pictures and infographics to scaffold meaning making. Images are part of the relevant literacy that can enable students to gain a sense of the overall theme without full verbal comprehension and use a top-down approach to understand details and make inferences about unknown vocabulary.

Literature without visuals

Those texts completely without image in the preparation material are predominantly excerpts from novels or song lyrics and poems. This reflects the high English literacy level expected from 10th grade students. Scaffolding for the fictional texts comes in the form of written introductions. Visually, frames separate the introductions from the literary excerpts, and font type and font size signpost the sources. Literary texts demand reading skills beyond functional literacy skills, what Nikolajeva (2014, p. 1) calls ‘deep reading’: “reading as an intellectual and aesthetic activity”. Bland (2015) points out how images and pictures, as scaffolding and shortcuts to deep reading, are useful for students of English. Yet, as shown in the previous section, images are generally not offered in literary texts. Factual texts, on the other hand, tend to be illustrated. ‘Culture’ may be a keyword in understanding this difference, as image can afford condensed and precise renditions of cultural contexts in factual texts. The combination may serve to make history more real. Maagerø and Tønnessen (2014, p. 227) have pointed out how factual texts in language textbooks tend to be illustrated with images that elaborate the meaning potential of the text, whereas fictional texts tend to be extended by visuals. Perhaps fiction, in the context of examination, is presented in a design with lower modal density to avoid complicating a demanding text by introducing more meaning potential through image. If so, images are regarded as extending and not elaborating the writing.

Digital media

Although digital media are by no means a prerequisite for making multimodal texts, they do offer opportunities for producing more complex texts, thereby affecting communication. The digital preparation material has a static left-hand menu of hyperlinked text titles, which means that the reader can gain an overview (Knox, 2007, p. 43) and choose his or her reading path; in the past, a paper booklet encouraged turning the pages in order.

Digital format affords the mode of sound. Students who wish to hear the text read aloud can click to listen. While sound is foremost a means of support for visually impaired students, this possible combination of modes directly influences the meaning-making process. For instance, if students decide to listen without simultaneously reading, their eyes are free to scrutinize image, in much the same way that children listening to an adult reading a picture book are able to pay more attention to the image and the multimodal ensemble than the adult, occupied with reading for the children (Nikolajeva & Scott, 2006). The sound option in the preparation material can be paused, slowed down, and replayed. Sound thus scaffolds the students' overall meaning making. Other potential modes, such as music, are not made use of, nor is the possibility of embedded video.

Perhaps digital infrastructure, such as Internet speed and software, imposes restrictions on modes like music and film. A possible circumvention of video use is found in the 2017 and 2018 examinations. The preparation materials reproduce in writing poetry performed on YouTube. It is likely that many students will copy the URL address given as the source and access the original video format. The transduction from recitation to writing (in which the poem is shortened with ellipses showing between stanzas) renders the text easily included in the preparation material's homogenized format. Moreover, the 2017 examination designers have added an illustration that connects with the last line and overall theme of the poem. The extended notion of text is perceptible in the preparation material; it is a multimodal text and images and ensembles must be "read".

Modes for production

So far, this article has demonstrated that the examination invites, and even requires, multimodal reading skills. This section discusses the literacy requirements of the tasks given. The analysis showed that the meaning potential of images is mainly reduced to inspiration. The examination in this sense does not apply an extended notion of text but interprets the curriculum literally: "...can further inspire ... creativity" (Udir, 2013, p. 1). Based on the long practice of using image as prompt, it is unexpected that the two most recent examinations do not include a task based on visuals. Furthermore, this lack contrasts with the high number of visuals in the preparation material for these same two years. Students can certainly include visuals in their texts, but they need to think of this themselves: the task does not suggest it. Correspondingly, an examiner may have trouble "rewarding" image use.

Students sitting the examination are requested to show awareness of the communicational situation. From a multimodal viewpoint, the examination guidelines contain an odd tension between choice and recommendations, when it comes to the visual qualities of writing:

To be able to present subject matter, to use aesthetic tools and to shape texts, is a part of the competence requirements in the English subject. You will choose for yourself

how to best show your awareness of the recipient and show the intention of your texts. This also applies to the choice of font and font size.

The standard for the body of your text is font size 12 and line space 1.5. (Arial, Calibri and Times New Roman have good legibility.) (Udir, examinations 2014, 2015, 2016, 2017 [my translation])

What is most striking in the above quotation is the ambivalence resulting from the creativity expected from the students, and the restriction that follows, especially as this reiterates a similar recommendation presented in the preparation material. Manifestly, the digital medium means that font and layout are modes that, despite their ubiquity, carry meaning and emerge as literacy skills tested in the English subject. Digital skills in the curriculum entail an awareness of what can be called multimodal ensembles, as expressed in the examination guidelines: “Effects, images, tables, headlines and bullet points are composed to underline and convey a message” (Examination guidelines, 2017). This shows that multimodal visual qualities of the English subject are important.

Communicational situation and creativity

Another problematic point concerns the communicational situation (Bjørkvold, 2015; Knain, 2008; Troelsen, 2018). The ability to use language and texts for active participation is what Hasan (2001, p. 60) calls “action literacy”. At first glance, students are asked to show action literacy. Tasks use verbs such as ‘explain’ and ‘create a text’, and in some cases ask for personal opinions, as such the purpose of the text is expressed. Audience and the communicative context, however, are not mentioned. Consequently, students have only the vague figure of an external examiner to write for. In this sense, the examination tasks fail to invite students to demonstrate the ability to choose modes for successful communication. As Hasan points out, students in this situation may feel under pressure to meet expectations (Hasan, 2001, p. 61). Creativity in the use of font, composition, and rhythm in layout, and potentially adding images is not stimulated. It is likely that students will stick with the recommended fonts with “good legibility”; as a result, formal requirements such as font and layout are not truly an issue for assessment, unless students fall short of using the standards. Should students wish to produce a multimodal text similar to those found in the preparation material, they risk wasting their efforts. None of the rubrics in the official assessment form includes communication in modes other than words.

As the observant reader may have anticipated, the most recent examination from 2018 is different when it comes to recommendations about fonts. It has the same information, verbatim, as previous examinations, about being able “to present subject matter”, but the lines recommending fonts have been removed. This gives more room for students’ actual creativity and action literacy, which is even further emphasized by the pre-examination report issued on 30 May 2018 by Udir: “We reiterate that the examination guidelines say that students can interpret tasks in untraditional and unexpected ways, and the external examiner must be

open to creative and unexpected solutions. ...” [my translation]. When it comes to recipient awareness, however, the overall question remains an unresolved one.

Implications, limitations, and future research

This article offers new perspectives on multimodality in English education, by showing that there is an imbalance between multimodal input and writing-dominated tasks in the 10th-grade examinations. More generally, it contributes to discussions on literacy and the effects media have on reading, writing and learning in our digital world. Currently, a curriculum revision is in its finishing stages in Norway, and one of the pillars in the revisions, is to enable students to face technological change with creativity, and critical and participatory skills (Udir, 2018/2019). Perhaps this article can contribute to the ongoing discussions in Norway and abroad.

Possible limitations in this study of multimodality in English examinations include its concentration on the examination papers set and not on student responses. Further research into student writing, tasks and assessment, in relation to visual modes – in addition to and in interplay with verbal ones – could provide valuable added insight.

Multimodal analysis, as carried out in this article, may be repeated, even though there is an element of personal interpretation as with all semiotic analysis. More research could be conducted on future examinations, and in other contexts. It would also be of interest to compare the concept of multimodal literacy in language education in other countries.

Conclusion

This article has argued that the English written school-leaving examination constitutes a rich multimodal text. Written text, layout, and images are the main modes employed. It claims that the multimodal ensembles of the preparation material and the examinations are well-designed, cohesive wholes that communicate efficiently. Furthermore, it finds that students are mainly invited to *read* multimodal texts and not *produce* them. Considering the washback effect, it is likely teaching and learning in schools will focus on the same. Students are asked to demonstrate their literacy in written mode, in contrast to the rich multimodal text of the examination and despite the many affordances of modes available when producing text on computers. This indicates that what is considered relevant literacy in the English examination is the ability to read and learn from multimodal texts, rather than the ability to produce multimodal texts.

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Examinations

From the Norwegian Directorate for Education and Training (Udir), the following documents from years: 2014, 2015, 2016, 2017, and 2018 have been examined and quoted in this article:

- Examination guidelines
- Preparation material websites
- Examination (Centrally given examination after year 10 for students and for adult participants and external participants. In Norwegian: Sentralt gitt eksamen etter 10. trinn for elever/elever og for vaksne/voksne deltakere/deltakere og privatistar/privatister.)
- Assessment examples (Vurderte eksamenssvar)
- Pre-examination reports (Forhåndssensur)

